

Self-Implementing On-Site Cleanup and Disposal Plan for PCB Caulking Removal

**Wethersfield High School
411 Wolcott Hill Road
Wethersfield, Connecticut
SDE Project No-080-0093 RNV/E**

Town of Wethersfield

Wethersfield, Connecticut

May 21, 2013
Revised July 31, 2013
Revised September 5, 2013
Revised September 20, 2013



Fuss & O'Neill EnviroScience, LLC
146 Hartford Road
Manchester, CT 06040



May 21, 2013
Revised July 31, 2013
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Ms. Katherine Woodward, PE
PCB Coordinator
U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code: OSRR07-2
Boston, MA 02109-3912

**RE: Self-Implementing On-Site Cleanup and Disposal Plan
Wethersfield High School, Wethersfield, Connecticut
SDE Project No-080-0093 RNV/E**
Fuss & O'Neill EnviroScience Project No. 20130259.A2E

Dear Ms. Woodward:

We are submitting this work plan in accordance with the notification requirements for a Self-Implementing On-Site Cleanup and Disposal plan for regulated PCB containing materials at the Wethersfield High School in Wethersfield, CT. The plan has been prepared and submitted in accordance with requirements of 40 CFR Part § 761.61(a) (3).

Thank you for your attention to this matter and if you have any questions with regard to the plan please contact the undersigned, Carlos Texidor, at (860) 646-2469 ext. 5570 or email: ctexidor@fando.com.

Sincerely,

A handwritten signature in blue ink, appearing to be 'CT-8'.

Carlos Texidor
Project Manager

A handwritten signature in blue ink, appearing to be 'Robert L. May Jr.'.

Robert L. May Jr.
President

CT/kr

cc: CT Department of Environmental Protection
Jeff Bridges, Town Manager

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1 Introduction

This plan has been prepared by Fuss & O'Neill EnviroScience, LLC (EnviroScience) on behalf of the Town of Wethersfield. The contact for the Town is Mr. Jeff Bridges, Town Manager, Town of Wethersfield, 505 Silas Deane Highway, Wethersfield, CT 06109, Telephone: (860) 721-2801, E-mail: jeff.bridges@wethersfieldct.com,. The plan has been prepared for Wethersfield High School located at 411 Wolcott Hill Road, Wethersfield, Connecticut 06109. The plan has been prepared to comply with the U.S. Environmental Protection Agency (EPA) requirements for notification of a Self-Implementing On-Site Cleanup and Disposal Plan (SIDP) in accordance with 40 CFR Part § 761.61(a)(3). This work will be conducted in support of proposed renovation and selective demolition, and new construction. There will be substantial renovation(s) throughout the school building.

Polychlorinated biphenyls (PCBs) have been identified in several building materials. These materials include caulking associated with exterior, and interior window systems, door and interior expansion joint compounds. In addition mastic adhesives associated with vinyl floor tiles and paint associated with both, plaster walls and concrete masonry unit (CMU) block walls. The building is scheduled to undergo a significant renovation including selective demolition in the 1952 Section and will be completed in the summer of 2016. The above mentioned materials where regulated PCB materials are present will require removal as part of the renovation and selective demolition of the existing building. A Site Location Map identifying the building is included in Figure 1-1.

1.1 Background

The original Wethersfield High School was constructed in 1952. This area is one level and consists of the Cafeteria, Auditorium, gymnasium/locker room, L shaped classroom, and administrative wing. A three (3) story classroom addition was constructed in 1956 at the north side. In 1961 an auxiliary gymnasium and support spaces, expansion of the administrative wing and kitchen support area was added. In 1967 several additions were constructed which include:

- PE/Wresting Gym
- Pool and adjacent locker-rooms
- Music Rehearsal rooms, Art studios and support spaces
- A three (3) story classroom addition
- A three (3) story classroom, Media Center and lecture hall addition
- Code updates and stair additions

In 1991-1992 there was a code update and asbestos abatement project. This scope included a small kitchen addition, an entrance canopy, and ramp addition. The stair at the northeast corner of the building was renovated to connect to all floors.

The building consists of approximately 279,608 square feet of classrooms, cafeteria, multi-purpose room, an interior in-ground pool, and music rehearsal rooms. The exterior of the building is concrete block and brick while interior walls are constructed of concrete block, wall board and brick, and plaster. Window systems are composed of metal. Figures HM-01 thru HM-05 shows the areas of the existing school.

The Wethersfield High School had most of the exterior windows replaced in 1984.



1.2 Project Objectives

This SIDP is for the removal of polychlorinated biphenyl (PCB) containing materials with equal to or greater than 50 parts per million (ppm) as PCB Bulk Product Waste and remediation of adjacent porous substrates. Steel structural components to remain such as steel lintels shall be cleaned to meet required visual standards and wipe sampling criteria for high occupancy use. Materials containing PCBs equal to or greater than (\geq) 50 ppm are listed in tables within the following sections for Site characterization. Materials containing >1 ppm but < 50 ppm have also been identified at the site. We have provided information regarding knowledge of renovation history and verification of adjacent porous materials to identify potentially “Excluded PCB Products”. Materials containing >1 ppm but < 50 ppm PCBs shall be removed as part of renovation to meet requirements of the State of Connecticut Department of Energy & Environmental Protection (CTDEEP).

The objective of the project is to remove PCBs identified as part of renovation. All PCB Bulk Product materials shall be removed and will include adjacent porous materials in accordance with the re-interpretation of October, 2012 in accordance with 40 CFR 761.62(b). Materials containing >1 ppm but < 50 ppm PCBs, meeting the definition of excluded PCB Products in accordance with definition in 40 CFR 761.3 shall be removed as required to meet CTDEEP requirements. Those materials >1 ppm but < 50 ppm which do not meet the definition of excluded PCB Products shall be removed and disposed of as PCB Remediation waste in accordance with 40 CFR 761.61 (a). Clean-up verification testing shall be performed in accordance with protocols established within this plan as approved.

It should be noted that testing of soils has been performed at the site to characterize contamination from PCB source materials. Identified soils exceeding proposed clean-up standards shall be removed as PCB remediation waste. A separate plan and technical specifications has been prepared for work to occur in the summer of 2013. Work shall be performed as Performance Based Disposal in accordance with 40 CFR 761.61 (b). Post remediation cleaning verification shall be performed in accordance with Sub-part O for all

remediation areas. A copy of the soil removal plan is included in Appendix F for information only.

Non-porous surfaces shall be cleaned to standard of $\leq 1 \mu\text{g}/100 \text{ cm}^2$. The overall project objective is to remove PCB materials to facilitate proposed renovation and selective demolition in selected sections of the school. Work shall be performed in accordance with the proposed renovation/selective demolition plans. The building is considered a high occupancy use building.

In accordance with State of Connecticut statutes we understand that other building materials containing PCBs $< 50 \text{ ppm}$ but equal to or greater than 1 ppm PCB, which meet the definition of excluded PCB products, are regulated by CTDEEP and require remediation. We have provided renovation knowledge and substrate testing as required for those materials to be excluded under 40 CFR § 761.3 to meet the definition of an excluded PCB products. Samples were collected to confirm excluded PCB products and the data for the sampling and analysis is included herein.

We proposed to remediate the below materials as described in accordance with 40 CFR Part § 761.61(a)(3).

Items 2-5, are located in the 1952, 1956, 1961 and 1967 sections of the building as follows: The 100, 300, and 500 levels are part of the 1956 and 1967 sections of the building while the 200 and 400 levels are part of the original 1952 section of the building). Level refers to particular wing/room identification. The 200 and 400 levels compromise a two-floor section of the building while the 100, 300, and 500 levels compromise a partial three-floor section of the building.

1. Remove existing interior expansion joint caulking on wall, and associated Concrete Masonry Unit (CMU) block wall 4" Inches) of CMU Wall on each side of the expansion joint caulking. Testing of substrate identified results of none detected at distance of 4 inches from caulking. Work shall occur in the 500, 300, and 100 Levels (521, 321, and 72) in the corridor of the 1967 section of the building. 521, 321, and 72 are location identifiers. In this case, corresponding corridor locations as identified in the PCB abatement drawing. Caulking material and CMU will be removed for disposal as PCB Bulk Product Waste. Post verification sampling shall be performed in accordance with Subpart O.
2. Removal of flooring and mastic in the 500 level as PCB Remediation Waste. Tile was replaced throughout the building in the 1990s. Tile previously contained asbestos and was removed and replaced with newer 12" x 12" flooring. Testing has identified PCBs within flooring mastic adhesive containing $> 50 \text{ ppm}$ PCB. The material shall be considered a PCB contaminated material and removed as PCB Remediation Waste. Testing of substrate identified concrete in two of three representative samples as none-detected at surface to half inch depth. One sample had a result of 3.9 ppm at surface but was $< 1 \text{ ppm}$ at depth of $\frac{1}{2}$ inch. We propose to remove mastic adhesive using a blast tract abrasive blasting machine. This will remove approximately $\frac{1}{8}$ inch of

concrete. We propose testing of substrate following removal to confirm results meet clean-up standards using Sub-part O sampling protocols.

3. Removal of flooring and mastic in the 400, 300, 200, and 100 levels as PCB Remediation Waste. Tile was replaced throughout the building in the 1990s. Tile previously contained asbestos and was removed and replaced with newer 12" x 12" flooring. Testing has identified PCBs within flooring mastic adhesive containing >50 ppm PCB. The material shall be considered a PCB contaminated material and removed as PCB Remediation Waste. Testing of substrate identified concrete in multiple representative samples as none-detected at surface to half inch depth. We propose to remove mastic adhesive using a blast tract abrasive blasting machine. This will remove approximately 1/8 inch of concrete. We propose to confirm results by conducting pre-characterization of all substrates once vinyl flooring and mastic is removed using Sub-part N frequency. If any areas are identified above clean-up standards they shall be cleaned and substrate removed as necessary and confirmed with post verification sampling using Sub-part O.
4. Removal of carpet flooring mastics and adhesives in the 500, 400, 300, 200, and 100 levels as PCB Remediation Waste. Carpet was replaced throughout the building in the 1990s. Tile was utilized extensively throughout the building originally and previously contained asbestos and was removed and replaced with newer 12" x 12" flooring or carpeting. Testing has identified PCBs within carpet mastic adhesive and glue containing >50 ppm PCB in the 500 and 300 levels only. PCBs were < 50 ppm in other levels. The material shall be considered a PCB contaminated material and removed as PCB Remediation Waste. Testing of substrate identified concrete in multiple representative samples as none-detected at surface to half inch depth. We propose to remove mastic adhesive and glue using a blast tract abrasive blasting machine. This will remove approximately 1/8 inch of concrete. We propose to confirm results by conducting pre-characterization of all substrates once carpet flooring and associated mastic/adhesive are removed using Sub-part N frequency. If any areas are identified above clean-up standards they shall be cleaned and substrate removed as necessary and confirmed with post verification sampling using Sub-part O.
5. Removal of vinyl wall base and glue will be removed as PCB Remediation waste as a PCB contaminated material. Substrates from representative surfaces on walls with highest result were none-detected and no substrate contamination was identified. We propose to confirm results by conducting pre-characterization of all substrates once vinyl base and adhesives are removed using Sub-part N frequency. If any areas are identified above clean-up standards they shall be cleaned and substrate removed as necessary and confirmed with post verification sampling using Sub-part O.
6. Remove existing interior painted plaster walls for disposal as PCB Remediation Waste <50 ppm. Plaster substrate was tested at highest paint result and had no PCBs detected. Paint cannot be separated from substrates and shall be removed entirely. Materials shall be removed from 1956 Addition and 1952 Core Building). All plaster will be removed entirely and is backed by wire mesh which will also be removed. Upon removal no additional materials will remain and no verification sampling shall be required.

7. Remove exterior window caulking and glazing compounds for disposal as PCB Remediation Waste <50 ppm. From 1952, 1967 and 1970 wings. Windows were installed in 1984 time frame as replacement windows. It could not be documented if the windows were installed prior to October 1, 1984. These materials therefor are not considered an excluded PCB Product and are included in proposed remediation. Substrate samples taken of adjacent masonry had no PCBs detected from 0.0"-0.5". We propose to confirm results by conducting pre-characterization of all substrates once window systems are removed using Sub-part N frequency. If any areas are identified above clean-up standards they shall be cleaned and substrate removed as necessary and confirmed with post verification sampling using Sub-part O.
8. Removal and off-site disposal of non-porous metal window assemblies including glass, PCB containing glazing compounds, insulation etc. from all locations identified as PCB Remediation Waste <50 ppm.
9. Removal of interior door frame caulk for disposal as PCB Remediation Waste <50 ppm from Gym B 54. We propose to confirm results by conducting pre-characterization of all substrates once vinyl base and adhesives are removed using Sub-part N frequency. If any areas are identified above clean-up standards they shall be cleaned and substrate removed as necessary and confirmed with post verification sampling using Sub-part O.

1.3 Plan Organization

This SIDP has been organized into the following sections:

Section 2: Site Characterization

The site characterization section provides a summary of the sampling performed to delineate the nature and extent of PCB as required in accordance with 40 CFR Part § 761.61 (a)(3) (A-C). The section includes the nature of the contamination including kinds of materials; a summary of the procedures used to sample contaminated and adjacent surfaces; and the location and extent of the identified contaminated areas.

Section 3: Remediation Plan

The remediation plan includes a discussion of how the remedial objectives identified in Section 1.2 shall be met and the remediation approach, cleanup levels to be met and the verification sampling approach to be utilized. This section includes diagrams depicting the areas of proposed remediation work and location for post-remediation verification sampling. The remediation plan is submitted in accordance with 40 CFR Part § 761.61 (a)(3)(D).

Section 4: Schedule and Certification

The proposed schedule for implementation and reporting schedule is provided. This section includes the written certification signed by the Owner of the property and other responsible parties responsible for the remediation, cleanup and disposal in accordance with 40 CFR Part § 761.61 (a)(3)(E).

2 Site Characterization

This section provides a summary of the sampling performed to delineate the nature and extent of PCB as required in accordance with 40 CFR Part § 761.61 (a)(3) (A-C). The section includes the nature of the contamination including kinds of materials; a summary of the procedures used to sample contaminated and adjacent surfaces; and the location and extent of the identified contaminated areas.

The following sections describe the selection of sample locations, sample collection methods, and the results of the characterization data. Testing was performed in three separate phases by three different consultants retained by the Town of Wethersfield. We have included copies of information provided by other consultants in the form of reports and laboratory data to facilitate preparation of this plan. The initial site characterization of source materials such as caulking exterior caulking and glazing compound materials (Phase 1) was performed by Eagle Environmental, Inc. (Eagle), testing of roofing materials, interior source materials and soil testing (Phase 2) was performed by EnviroMed Services, Inc. (EnviroMed), supplemental source testing and testing of adjacent porous surfaces to facilitate development of this SIDP plan (Phase 3 was performed by Fuss & O'Neill EnviroScience, LLC (EnviroScience). The development of the SIDP plan was performed by EnviroScience. Figures depicting the locations of all samples collected by EnviroScience are included in Drawings HP-001, HP-002, HP-003, HP-004, and HP-005 respectively. All sample location drawings prepared by EnviroMed are included in their respective reports.

2.1 Sample Collection and Analysis

BULK PRODUCT MATERIAL SAMPLING

On December 21, 23, and 27, 2011, Eagle Environmental performed initial testing of bulk product materials to be analyzed for PCBs. Additional sampling was performed by EnviroMed in December 2012 and February 2013. On April 15, 2013, EnviroScience performed additional testing of bulk product materials in order to satisfy EPA sampling protocols. Source material sampling locations are identified below. Please refer to HP-001-005. In addition, please refer to the following reports include as Appendices to this Plan.

- Polychlorinated Biphenyl (PCB) Containing Materials Sampling & Analysis Report, Eagle Environmental, Inc., dated January 11, 2012 (*Appendix A*)
- PCB Building Material Testing, EnviroMed Services, Inc., dated December 2012 (*Appendix A*)
- PCB Bulk Sampling – Paint on Plaster Walls, EnviroMed Services, Inc., dated February 5, 2013 (*Appendix A*)
- PCB Flooring Sampling, EnviroMed Services, Inc., dated February 26, 2013 (*Appendix A*)
- Laboratory results for source material samples collected by EnviroScience are summarized herein and laboratory results are included in *Appendices A*.

The following source material samples were collected:

1952 Original Building

- White hard original exterior window casing caulk - 3 samples
- Brown rubbery aluminum window casing caulk – 3 samples
- Beige brittle door frame caulk – 3 samples
- White brittle exhaust vent frame caulk – 3 samples
- Beige brittle door wood casing caulk – 3 samples
- Grey hard door frame caulk - 3 samples
- White rubbery door frame caulk – 3 samples
- Side panel exterior window glazing compound – 3 samples
- Interior white residual casing caulk – 3 samples
- Black sticky window glazing compound – 3 samples
- White classroom door window glazing compound – 3 samples
- Chalky white window frame caulk – 3 samples
- Grey roof flashing caulk - 2 samples

1967 Addition

- Original white exterior window casing caulk – 3 samples
- Black rubbery exterior window casing caulk – 3 samples
- Grey exterior door casing caulk - 4 samples
- White brittle door window glazing – 1 sample
- Black sticky interior window glazing compound – 3 samples

1970 Addition

- Brown rubbery exterior window casing caulk – 3 samples
- Exterior exhaust vent caulk – 2 samples
- Rubberly exterior door frame caulk – 3 samples
- Original light beige door frame caulk – 2 samples
- Original beige exterior window casing caulk – 3 samples
- White exterior window casing caulk – 3 samples
- Black sticky interior window glazing compound – 3 samples
- Interior fixed partition window casing caulk – 3 samples
- Grey elastic fixed window frame caulk – 1 sample
- Grey fixed window glazing compound – 4 samples
- Grey caulk at roof metal flashing – 3 samples
- Red caulk at pool expansion joints – 3 samples

1990 Addition

- Interior window joint caulk – 3 samples
- Roofing - main field – 14 samples
 - (Pool roof – 1 PPM)

- Roofing – flashing – 12 samples
- Caulk on louvers – 1 sample
- Caulk on metal flashing – 1 sample
- Roof tar on metal flashing – 1 sample
- Floor tile and mastic - - 3 samples
- Vinyl cove base and glue – 3 samples
- Carpet glue – 3 samples
- Ceiling tiles – 3 samples
- Paint on wallboard – 1 sample
- Expansion joint caulk – 1 sample
- Auditorium seats – 1 sample
- Paint on plaster – 2 samples
- Fiberboard, 400 level – 1 sample
- Internal window caulk, 300 level – 1 sample
- Door frame caulk, 300 level – 1 sample
- Textured finish wall, auditorium - 1 sample
- Paint on plaster walls 1952 Original Building and 1967 Addition – 75 samples
- 12" x 12" light grey vinyl floor tile – 4 samples
- 12" x 12" light grey vinyl floor tile mastic – 45 samples
- Blue rubber flooring material – 5 samples
- Blue rubber flooring glue – 8 samples
- 12" x 12" dark grey vinyl floor tile – 2 samples
- 12" x 12" dark grey vinyl floor tile mastic – 3 samples
- Carpet multicolor – 2 samples
- Carpet pink/blue floor material glue 1 - sample
- Carpet multicolor mastic – 5 samples
- 12" x 12" blue vinyl floor tile – 3 samples
- 12" x 12" blue vinyl floor tile mastic -13 samples
- 12" x 12" light blue vinyl floor tile – 2 samples
- 12" x 12" light blue vinyl floor tile mastic -2 samples
- Multicolor pink carpet glue – 6 samples
- Multicolor pink carpet flooring material – samples
- 4" grey cove base – 9 samples
- 4" grey cove base glue – 31 samples
- 4" black cove base – 3 samples
- 4" black cove base glue - 7 samples
- 4" brown cove base – 1 sample
- 4" brown cove base glue – 1 sample
- 4" tan cove base – 4 samples
- 4" tan cove base glue – 17 samples
- 6" tan cove base – 1 sample
- 6" tan cove base glue – 1 sample
- 12" x 12" white vinyl floor tile – 1 sample

- 12" x 12" white vinyl floor tile mastic – 1 sample
- Blue carpet flooring material – 1 sample
- Blue carpet flooring material glue – 1 sample
- 4" light brown cove base – 1 sample
- 4" light brown cove base glue – 1 sample
- 6" black cove base – 1 sample
- 6" black cove base glue – 1 sample
- 6" grey cove base – 1 sample
- 6" grey cove base glue – 1 sample
- Black carpet mastic – 1 sample
- Blue carpet mastic/glue – 3 samples
- 12" x 12" white/grey specs mastic – 1 sample
- 12" x 12" grey/dark specs vinyl floor tile mastic – 1 sample
- 12" x 12" red vinyl floor tile mastic – 1 sample
- 9x9 tan vinyl floor tile mastic – 2 samples
- 12" x 12" light blue vinyl floor tile mastic –
- Carpet flooring material glue – 3 samples
- 12" x 12" dark blue vinyl floor tile - 1 sample
- 12" x 12" dark blue vinyl floor tile mastic - 1 sample
- Paint on CMU – 7 samples
- Paint on brick – 4 samples
- Paint on plaster – 3 samples
- Black sealer – 3 samples
- Caulk for bench, vestibule 258– 3 samples
- Interior door frame caulk, vestibule 258 – 3 samples
- Interior door caulk –1952 gymnasium – 3 samples
- Interior door frame caulk – 1967 – 3 samples
- Interior window casing caulk – 1967 – 3 samples
- Black cement on ductwork – 3 samples
- Seam sealer on ductwork – 3 samples

Bulk Sampling

Methods of sampling by Eagle and EnviroMed Services were not determined or verified by EnviroScience. Any available information on sampling methodology and decontamination procedures are identified in reports provided to us by the Town of Wethersfield. Samples collected by Eagle Environmental were analyzed by Phoenix Environmental of Manchester, CT. Samples collected by EnviroMed were analyzed by Con-Test Analytical Laboratory of East Longmeadow, MA and Pace Analytical Services, Inc. of Schenectady, NY. The analytical method for analysis included extraction method 3540C and analysis method SW846 8082.

Sampling performed by EnviroScience involved removal of bulk product materials (source materials) such as caulking, mastics glazing compounds, and paints using hand tools to submit for PCB analysis. The tools utilized were either dedicated tools which were discarded after each

sample was collected or those tools utilized to collect samples were cleaned using hexane wash procedure between collecting each unique sample. Each sample was placed in containers, labeled, and delivered to the laboratory using chain of custody. Samples collected by EnviroScience were analyzed by Phoenix Environmental of Manchester, CT. The analytical method for analysis included extraction method 3540C and analysis method SW846 8082.

The sample numbers, locations, material description, and analysis results are included in Table 2.1 (in Section 2.2.1). Sample locations associated with Eagle and EnviroMed are in the attached reports referenced above.

Initial testing results of source materials at Wethersfield High School located in Wethersfield, Connecticut determined the following materials to contain PCBs at concentrations ≥ 50 PPM:

- Interior expansion joint caulk – **93,000 PPM** (500, 300, 100 Levels)
- 12" x 12" Blue Vinyl Floor Tile mastic adhesives – **371 PPM** (500 Level)
- Multi-Color Carpet Flooring Material mastic adhesives – **203 PPM** (500 Level)
- 12" x 12" Light gray Vinyl Floor Tile Mastic adhesives – **609 PPM** (500 Level)
- Blue rubber Floor Tile Glue – **63 PPM** (300 Level)
- 12" x 12" Light Blue Vinyl Floor Tile Mastic adhesive - **309 PPM** (300 Level)
- 12" x 12" Light gray Vinyl Floor Tile Mastic adhesive – **1,070 PPM** (300 Level)
- Pink Carpet Floor material Glue - **83 PPM** (300 Level)
- 12" x 12" Light gray Vinyl Floor Tile Mastic adhesive - **208 PPM** (100 Level)
- 12" x 12" Blue Vinyl Floor Tile Mastic adhesive – **3350 PPM** (100 Level)

In addition, PCBs at concentrations > 1 PPM but < 50 PPM were identified in the following materials:

- 1952 original building – beige brittle door frame caulk, 5 PPM – 32 PPM
- 1952 original building – exterior white brittle vent frame caulk – 2.2 PPM
- 1952 original building – grey hard door frame caulk, 1.4 PPM
- 1952 original building – black sticky window glazing compound, 1.1 PPM
- 1952 original building – white classroom door window glazing compound, 8.3 PPM
- 1970 addition – exterior exhaust vent caulk, 3.2 PPM
- 1970 addition, black sticky interior window glazing compound, 4.8 PPM
- 1970 addition, interior fixed partition window casing caulk – 9 PPM
- 1970 addition, grey elastic fixed window frame caulk – 5.5 PPM
- 1970 addition, grey fixed window glazing compound – 2.9 PPM
- 1967 addition – Pool roof, main field – 1 PPM
- 1952 original building, cafeteria roof, frame caulk on roof top louvers' – 1.4 PPM
- 500, 400, 300 level, vinyl baseboard and associated glue – 3.4 PPM, 30 PPM, 1.2 PPM
- 400, 300 level, vinyl floor tile and associated mastic adhesive – 1.0 PPM, 1.0 PPM
- Carpet glue – 2.2 PPM, 3.0 PPM, 9.3 PPM
- Paint on plaster – none detected – 7 PPM (500 Level), 7 PPM (400 Level) 33 PPM (500 Level)
- 300 level, internal window frame caulk – 2.17 PPM

- 1952 original building, paint on CMU – 1.2 PPM
- 1952 original building, 200 and 400 level, interior white residual casing caulk – 4.4 PPM
- 1952 original building, 200 and 400 level, white classroom door window glazing – 1.2 PPM
- 1967 addition – exterior beige window frame casing caulk – 1.2 PPM
- 1967 addition – exterior white window casing caulk – 1.0 PPM
- 1967 addition – exterior white door casing caulk – 1.0 PPM
- 1967 addition – interior fixed partition window casing caulk – 7.8 PPM
- 1967 addition – red caulk at pool expansion joint – 2.2 PPM
- Boiler room – black sealer – 1.4 PPM
- 1952 original building, gymnasium – interior door frame caulk – 5.2 PPM
- 1956 addition, 100/300/500 levels, interior door frame caulk – 6.2 PPM
- 1956 addition, 100/300/500 levels, interior window frame caulk – 9.7 PPM
- 1952 original building, auditorium catwalk, black cement and seam sealer at ductwork– 10–15PPM

“EXCLUDED PCBs PRODUCT”

Sampling of adjacent porous materials was performed in April and May 2013 by EnviroScience for those materials >1 ppm but less than 50 ppm. Samples were collected by EnviroScience Senior Environmental Technician Eduardo Miguel Marques. All samples collected were transmitted to Phoenix Environmental of Manchester, CT. Refer to next section for results and testing summary.

A review of renovation history was conducted for building materials in addition to sampling in an effort to ensure products containing < 50 ppm PCB were installed prior to October 1, 1984. Building caulks, sealers and glazing putty that were determined to be Excluded PCB Products are those where confirmation of renovation history identified original installations prior to October 1, 1984. All of the below listed materials were determined to be original to building construction and no evidence that original regulated sources presumed > 50 ppm existed as documented with adjacent substrate confirmation. The analytical method for analysis included extraction method 3540C and analysis method SW846 8082.

- | | | |
|---|---------|--------|
| • Paint on CMU (Block Wall)(Locker room) | 1.2 PPM | (1952) |
| • Exterior beige brittle door frame caulk | 32 PPM | (1952) |
| • Interior White residual casing caulk | 4.4 PPM | (1952) |
| • White classroom door window glazing | 8.3 PPM | (1952) |
| • Black Cement on Duct work (Metal) | 11 PPM | (1952) |
| • Seam Sealer on Duct work (Metal) | 15 PPM | (1952) |

ADJACENT SURFACE SAMPLING

EnviroMed performed PCB soil sampling on March 8-9, 2013. On April 16-19, 2013, EnviroScience performed adjacent porous surface testing. In addition, EnviroScience collected confirmatory and supplemental soil samples to verify and delineate extent of contamination.

Supplemental testing was required for the development of this plan for submission to the EPA prior to renovations.

Porous Materials Testing

Fifteen samples of interior concrete floor associated with PCB-containing floor tile/mastic adhesives were collected at depths of surface to 0.5 inches. One (additional sample of interior concrete floor was collected at a depth of 0.5-1.0 inches where PCBs were detected at a concentration greater than 1 ppm but less than 50 ppm.

Six samples of CMU block wall associated with paint, cove base/glue, and interior expansion joint caulk were collected at depths of surface to 0.5 inches at contact point of source materials. One additional sample of CMU block wall was collected at a depth of 0.5-1.0 inches where PCBs were detected at a concentration greater than 1 ppm but less than 50 ppm (associated with interior expansion joint caulk).

Six samples of plaster associated with paint and interior window and door frame caulk were collected at locations where PCBs were detected at a concentration greater than 1 ppm but less than 50 ppm.

One sample of interior brick veneer associated with interior door frame caulk was collected at a depth of surface to 0.5 inches where PCBs were detected at a concentration greater than 1 ppm but less than 50 ppm.

Four samples of exterior brick veneer associated with exterior white brittle exhaust vent frame caulk, exterior door and window frame caulk were collected at depths of surface to 0.5 inches at contact point of source materials in locations where PCBs were detected at a concentration greater than 1 ppm but less than 50 ppm.

One sample of concrete wall associated with black sealer was collected at a depth of surface to 0.5 inches in the location where PCBs were detected at a concentration greater than 1 ppm but less than 50 ppm.

Soil Testing

On March 8-9, 2013, EnviroMed Services collected 99 soil samples from the exterior perimeter areas of the building noted to have PCB concentrations associated with caulking. Soil samples were collected at depths of 0-4 inches. EnviroMed collected eleven (11) additional samples in locations where PCBs were detected in soil to determine the extent of contamination. These samples were collected at a depth of 4-8 inches. EnviroScience, LLC collected one additional sample to verify extent of PCB contamination in soil in one location (North Elevation 30) where sample from 4-8 inch depth was > 1ppm. This sample was collected from depth of 8-12 inches.

The sample numbers, locations, material description, and analysis results for Fuss & O'Neill EnviroScience are included in Table 2.2.4. Refer to drawings HP-001- 005, and EnviroMed Reports identifying locations of collected samples.

Bulk Sampling – Porous Surfaces

EnviroScience conducted sampling of masonry, CMU (Block Walls), and Plaster walls in accordance with EPA “Standard Operating Procedures for Sampling Porous Surfaces for Polychlorinated Biphenyls” dated May 5, 2011. Sampling involved first complete removal of bulk product materials (source materials) at sampling locations using hand tools. The intent was to ensure complete removal of source material prior to sampling adjacent surfaces. Once removal of all visible source material was performed the porous surfaces were cleaned with hexane and rinsed with distilled water. The adjacent porous surfaces tested were exterior brick veneer and interior block. Porous surfaces were sampled using a mechanical hammer drill to obtain samples at depths of 0 to 0.5 inch depth and 0.5 to 1 inch depths where possible based on material matrix. The bulk materials were analyzed for PCB content. Tools utilized to collect samples were cleaned using hexane wash series including soapy water, distilled clean water, and hexane between sampling. Each sample was placed in 4 ounce glass jars, labeled and delivered to laboratory using proper chain of custody.

The sample numbers, locations, material description, and analysis results are included in Table 2.2. Refer to drawings HP-001- 005, and EnviroMed Reports identifying locations of collected samples and drawing identifying locations of collected samples.

2.2 Sample Analysis Results

The following tables summarize the specific sampling locations of collected samples and results of PCB analysis. The analytical method for analysis included extraction method 3540C (Soxhlet Extraction) and analysis method SW846 8082. The laboratory results and chain of custody are included in Appendices.

2.2.1 Source Material Sample Analysis Results

The analysis results of all collected source materials collected are summarized in Table 2.1. Note results in bold contain PCBs at ≥ 50 ppm or greater.

Table 2.1 – PCB Bulk Product Sample Analysis Results Summary

Sample Number	Sampled Location	Material Description	Result (mg/kg or ppm)
1952, 1956			
12-21-EDFC-03	Exterior – front façade outside asst. principal’s office	Beige brittle door frame caulk	5.0 Reporting limit, 0.76
12-21-EW0CCS-05	Exterior – left façade, outside guidance office	Beige brittle door wood casing caulk	None detected Reporting limit, 0.77
12-31-IWGCS-39	Interior – adult ed. class	Black sticky window glazing compound	1.1 Reporting limit, 0.44
12-31-IWGCS-40	Interior – classroom 413	Black sticky window glazing compound	None detected Reporting limit, 0.78
12-31-IWGCS-41	Interior – classroom 410	Black sticky window glazing	None detected

Sample Number	Sampled Location	Material Description	Result (mg/kg or ppm)
		compound	Reporting limit, 0.76
12-21-AEWCCS-02	Exterior – front façade outside nurse's office	Brown rubbery aluminum window casing caulk	None detected Reporting limit, 0.82
12-21-AEWCCS-06	Exterior – left façade, outside guidance office	Brown rubbery aluminum window casing caulk	None detected Reporting limit, 0.81
12-21-EWCCS-15	Exterior – right façade, guidance parking lot side	Brown rubbery aluminum window casing caulk	None detected Reporting limit, 0.90
12-27-EWFCS-52	Exterior – gymnasium	Chalky white window frame caulk	None detected Reporting limit, 0.83
12-27-EWFCS-53	Exterior – gymnasium	Chalky white window frame caulk	None detected Reporting limit, 0.76
12-27-EWFCS-54	Exterior – gymnasium	Chalky white window frame caulk	None detected Reporting limit, 0.80
0415EMM-11	1952 – entrance adj. nurse	Exterior beige brittle door frame caulk	32 Reporting limit, 3.8
0415EMM-12	1952 – below asst. principal office	Exterior beige brittle door frame caulk	6.3 Reporting limit, 0.77
0415EMM-15	1952 – door adj. guidance	Exterior beige brittle door wood casing caulk	None detected Reporting limit, 0.92
0415EMM-16	1952 – door adj. guidance	Exterior beige brittle door wood casing caulk	None detected Reporting limit, 0.90
0415EMM-17	1952 – door adj. life mgmt.	Exterior beige white rubbery door frame caulk	None detected Reporting limit, 0.79
0415EMM-18	1952 – door adj. wrestling	Exterior side panel window glazing compound	None detected Reporting limit, 0.55
0415EMM-19	1952 – door adj. wrestling	Exterior side panel window glazing compound	None detected Reporting limit, 0.97
0415EMM-13	1952 – below asst. principal office	Exterior white brittle exhaust vent frame caulk	2.2 Reporting limit, 0.81
0415EMM-14	1952 – below principal office	Exterior white brittle exhaust vent frame caulk	None detected Reporting limit, 0.80
0415EMM-22	1952 – room 217	Exterior white classroom door window glazing compound	1.2 Reporting limit, 0.79
12-21-EDFCS-08	Exterior – gymnasium	Grey hard door frame caulk	1.4 Reporting limit, 0.82
12-21-EDFCS-09	Exterior – gymnasium	Grey hard door frame caulk	None detected Reporting limit, 0.80
12-21-EDFCS-10	Exterior – gymnasium	Grey hard door frame caulk	0.45 Reporting limit, 0.43
12-27-ERFCS-55	Exterior – gymnasium	Grey roof flashing caulk	None detected Reporting limit, 0.78
12-27-ERFCS-56	Exterior – gymnasium	Grey roof flashing caulk	None detected Reporting limit, 0.78

Sample Number	Sampled Location	Material Description	Result (mg/kg or ppm)
12-21-IWCCS-38	Interior – business class	Interior white residual casing caulk	None detected Reporting limit, 0.77
0415EMM-21	1952 – room 217	Interior white residual door casing caulk	4.4 Reporting limit, 0.79
0415EMM-20	1952 – room 221	Interior white residual window casing caulk	None detected Reporting limit, 0.99
0415EMM-08	1952 – room 217	Paint on plaster	0.91 Reporting limit, 0.50
0415EMM-09	1952 – room 218	Paint on plaster	None detected Reporting limit, 0.46
0415EMM-10	1952 – corridor adj. 422	Paint on plaster	19 Reporting limit, 2.8
12-21-EWGCS-13	Exterior – gymnasium	Side panel exterior window glazing compound	None detected Reporting limit, 0.98
12-21-EEVFCS-04	Exterior – front façade, outside principal's office	White brittle exhaust vent frame caulk	1.5 Reporting limit, 0.82
12-23-IDWGCS-42	Interior – classroom 216	White classroom door window glazing compound	0.83 Reporting limit, 0.81
12-23IDWGCS-43	Interior – classroom 220	White classroom door window glazing compound	None detected Reporting limit, 0.78
12-21-EWCCS-14	Exterior – right façade, guidance parking lot side	White hard original exterior window casing caulk	None detected Reporting limit, 0.79
12-21-OEWCCS-01	Exterior – front façade outside nurse's office	White hard original exterior window casing caulk	None detected Reporting limit, 0.80
12-21-OEWCCS-07	Exterior – left façade, outside guidance office	White hard original exterior window casing caulk	None detected Reporting limit, 0.81
12-21-ERDFCS-11	Exterior – gymnasium	White rubbery door frame caulk	None detected Reporting limit, 0.82
12-21-ERDFCS-12	Exterior – gymnasium	White rubbery door frame caulk	None detected Reporting limit, 0.81
1961, 1967 Addition			
12-21-EWCCS-19	Exterior – rear façade outside world language	Black rubbery exterior window casing caulk	None detected Reporting limit, 0.73
12-21-EWCCS-20	Exterior – courtyard	Black rubbery exterior window casing caulk	None detected Reporting limit, 0.80
12-21-EWCCS-21	Exterior – courtyard	Black rubbery exterior window casing caulk	None detected Reporting limit, 0.81
12-21-IWGCS-37	Interior – inside stairwell	Black sticky interior window glazing compound	None detected Reporting limit, 0.75
12-23-IDWGCS-50	Interior – classroom 304	Black sticky interior window glazing compound	None detected Reporting limit, 0.91
12-23-WGCS-51	Interior – classroom 304	Black sticky interior window glazing compound	None detected Reporting limit, 0.81
0415EMM-23	1967 – door adj. room	Exterior grey door casing	None detected

Sample Number	Sampled Location	Material Description	Result (mg/kg or ppm)
	106	caulk	Reporting limit, 0.82
0415EMM-24	1967 – door adj. room 106	Exterior grey door casing caulk	None detected Reporting limit, 0.80
12-21-EDCCS-22	Exterior – rear façade outside stairwell	Grey exterior door casing caulk	None detected Reporting limit, 0.78
12-21-EDCCS-23	Exterior – rear façade outside stairwell	Grey exterior door casing caulk	None detected Reporting limit, 0.79
12-21-EWCCS-16	Exterior – rear façade outside world language	Original white exterior window casing caulk	1.0 Reporting limit, 0.78
12-21-EWCCS-17	Exterior – rear façade outside world language	Original white exterior window casing caulk	0.82 Reporting limit, 0.49
12-21-EWCCS-18	Exterior – courtyard	Original white exterior window casing caulk	None detected Reporting limit, 0.81
12-23-IDWGSC-49	Interior – classroom 303	White brittle door window glazing compound	0.82 Reporting limit, 0.65
12-21-IWGCS-34	Interior – corridor language lab	Black sticky interior window glazing compound	4.8 Reporting limit, 0.47
12-23-IWGCS-44	Interior – ES2	Black sticky interior window glazing compound	3.6 Reporting limit, 1.0
12-23-IWGCS-45	Interior – room 307	Black sticky interior window glazing compound	2.7 Reporting limit, 0.80
12-21-EWCCS-24	Exterior – left rear façade outside life management	Brown rubbery exterior window casing caulk	None detected Reporting limit, 0.71
12-21-EWCCS-25	Exterior – left rear façade outside graphics/mac lab	Brown rubbery exterior window casing caulk	None detected Reporting limit, 0.82
12-21-EWCCS-26	Exterior – left rear façade outside world languages	Brown rubbery exterior window casing caulk	None detected Reporting limit, 0.81
0415EMM-27	1970 – door/window adj. fabrication	Exterior beige window/door casing caulk	1.2 Reporting limit, 0.82
0415EMM-28	1970 – door/window adj. fabrication	Exterior beige window/door casing caulk	0.88 Reporting limit, 0.79
0415EMM-29	1970 – door/window adj. CAD	Exterior beige window/door casing caulk	1.1 Reporting limit, 0.76
0415EMM-30	1970 – door/window adj. CAD	Exterior beige window/door casing caulk	1 Reporting limit, 0.78
12-21-EEVCS-27	Exterior – left rear façade outside life management	Exterior exhaust vent caulk	3.2 Reporting limit, 0.82
12-21-EEVCS-28	Exterior – left rear façade outside energy/power	Exterior exhaust vent caulk	None detected Reporting limit, 0.83
0415EMM-26	1970 – door adj. life	Exterior light beige door	None detected

Sample Number	Sampled Location	Material Description	Result (mg/kg or ppm)
	mgmt.	frame caulk	Reporting limit, 0.81
0415EMM-25	1970 – door adj. life mgmt.	Exterior rubbery door frame caulk	None detected Reporting limit, 0.78
12-27-ERFCS-57	Exterior – auditorium	Grey caulk at roof metal flashing	None detected Reporting limit, 0.83
12-27-ERFCS-58	Exterior – pool	Grey caulk at roof metal flashing	None detected Reporting limit, 0.80
12-27-ERFCS-59	Exterior – pool corridor rooftop	Grey caulk at roof metal flashing	None detected Reporting limit, 0.81
12-23-IFWFCS-46	Interior – room 310	Grey elastic fixed window frame caulk	5.5 Reporting limit, 0.87
12-23-IFWFCS-47	Interior – room 310	Grey elastic fixed window frame caulk	None detected Reporting limit, 1.0
0415EMM-34	1970 – adj. language office	Grey fixed window glazing compound	None detected Reporting limit, 0.94
0415EMM-35	1970 – adj. language office	Grey fixed window glazing compound	None detected Reporting limit, 0.79
12-23-IFWGCS-48	Interior – room 307	Grey fixed window glazing compound	2.9 Reporting limit, 0.76
12-21-IWCCS-35	Interior – child development lab	Interior fixed partition casing caulk	5.2 Reporting limit, 0.80
12-21-IWCCS-36	Interior – child development lab	Interior fixed partition casing caulk	9.0 Reporting limit, 0.82
0415EMM-31	1970 – adj. 310	Interior fixed partition window casing caulk	7.8 Reporting limit, 0.95
12-21-EWCCS-31	Exterior – metal window – rear façade outside fabrication	Original beige exterior window casing caulk	0.80 Reporting limit, 0.79
12-21-EDFCS-30	Exterior – rear façade outside fabrication	Original light beige exterior door frame caulk	None detected Reporting limit, 0.83
12-21-EDFCS-33	Exterior – gymnasium, side entrance to corridor	Original light beige exterior door frame caulk	None detected Reporting limit, 0.80
12-27-EBECS-60	Exterior brick expansion joint	Red caulk at pool expansion joints	None detected Reporting limit, 0.81
12-21-EDFCS-29	Exterior – left rear façade outside life management	Rubbery exterior door frame caulk	None detected Reporting limit, 0.78
12-21-EWCCS-32	Exterior – metal window – rear façade outside fabrication	White exterior casing caulk	None detected Reporting limit, 0.44
1952, 1956, 1961 and 1967			
99-flooring-600	200 level, copier room	12" x 12" blue	None detected Reporting limit, 0.175
100-flooring-601	200 level, copier room	12" x 12" blue mastic	0.846 Reporting limit, 0.424

Sample Number	Sampled Location	Material Description	Result (mg/kg or ppm)
5-flooring-102	500 level, theater 535	12" x 12" blue vinyl floor tile	1.080 Reporting limit, 0.151
141-flooring-805	Basement, dress room 87	12" x 12" blue vinyl floor tile	None detected Reporting limit, 0.298
155-flooring-596	100 level, ell 354	12" x 12" blue vinyl floor tile	23.8 Reporting limit, 0.766
124-flooring-375	200 level, conference 264	12" x 12" blue vinyl floor tile mastic	None detected Reporting limit, 0.707
132-flooring-617	200 level, server 246	12" x 12" blue vinyl floor tile mastic	4.219 Reporting limit, 0.491
134-flooring-456	200 level, room 212	12" x 12" blue vinyl floor tile mastic	1.795 Reporting limit, 0.480
142-flooring-806	Basement, dress room 87	12" x 12" blue vinyl floor tile mastic	2.323 Reporting limit, 0.372
156-flooring-597	100 level, ell 354	12" x 12" blue vinyl floor tile mastic	3,010 Reporting limit, 68.1
161-flooring-818	100 level, gym hall	12" x 12" blue vinyl floor tile mastic	1.263 Reporting limit, 0.214
177-flooring-492	100 level, office 107	12" x 12" blue vinyl floor tile mastic	1.33 Reporting limit, 0.593
181-flooring-512	100 level, language office 119	12" x 12" blue vinyl floor tile mastic	350 Reporting limit, 11.2
196-flooring-589	100 level, office 107	12" x 12" blue vinyl floor tile mastic	3,350 Reporting limit, 68.3
199-flooring-563	100 level, staff dining 76C	12" x 12" blue vinyl floor tile mastic	6.08 Reporting limit, 0.369
9-flooring-103	500 level, theater 535	12" x 12" blue vinyl floor tile mastic	370.8 Reporting limit, 9.82
159-flooring-709	100 level, corridor 52	12" x 12" dark blue vinyl floor tile	None detected Reporting limit, 0.694
190-flooring-699	100 level, corridor 38	12" x 12" dark blue vinyl floor tile mastic	1.055 Reporting limit, 0.280
3-flooring-21	500 level, room 505A	12" x 12" dark grey vinyl floor tile	0.258 Reporting limit, 0.217
151-flooring-566	100 level, cafeteria 69	12" x 12" dark grey vinyl floor tile	1.87 Reporting limit, 0.444
11 flooring-22	500 level, room 505A	12" x 12" dark grey vinyl floor tile mastic	0.613 Reporting limit, 0.476
152-flooring-567	100 level, cafeteria 69	12" x 12" dark grey vinyl floor tile mastic	27.0 Reporting limit, 6.33
22-flooring-18	500 level, room 505	12" x 12" dark grey vinyl floor tile mastic	1.734 Reporting limit, 0.541
125-flooring-359	200 level, office 267	12" x 12" grey vinyl floor tile glue	1.62 Reporting limit, 0.922
139-flooring-383	200 level, reception 276	12" x 12" grey vinyl floor	None detected

Sample Number	Sampled Location	Material Description	Result (mg/kg or ppm)
		tile mastic	Reporting limit, 0.204
198-flooring-544	100 level, corridor 73	12" x 12" grey/dark specs vinyl floor tile mastic	11.5 Reporting limit, 0.576
53-flooring-312	300 level, room 332	12" x 12" light blue vinyl floor tile	1.618 Reporting limit, 0.139
32-flooring-120	400 level, room 419A	12" x 12" light blue vinyl floor tile	None detected Reporting limit, 0.187
36-flooring-121	400 level, room 419A	12" x 12" light blue vinyl floor tile glue	1.445 Reporting limit, 0.465
54-flooring-313	300 level, room 332	12" x 12" light blue vinyl floor tile mastic	309.3 Reporting limit, 10.7
97-flooring-404	200 level, special ed. 216	12" x 12" light grey	None detected Reporting limit, 0.197
98-flooring-405	200 level, special ed. 216	12" x 12" light grey mastic	None detected Reporting limit, 0.329
1-flooring-87	500 level, room 538A	12" x 12" light grey vinyl floor tile	1.80 Reporting limit, 0.179
34-flooring-128	400 level, room 421	12" x 12" light grey vinyl floor tile	0.223 Reporting limit, 0.196
55-flooring-234	300 level, room 316	12" x 12" light grey vinyl floor tile	33.24 Reporting limit, 1.37
129-flooring-637	200 level, nurse office 230	12" x 12" light grey vinyl floor tile mastic	5.364 Reporting limit, 0.345
130-flooring-641	200 level, sick 225	12" x 12" light grey vinyl floor tile mastic	3.102 Reporting limit, 0.189
131-flooring-609	200 level, computer 247	12" x 12" light grey vinyl floor tile mastic	1.06 Reporting limit, 0.377
133-flooring-625	200 level, lobby 281	12" x 12" light grey vinyl floor tile mastic	18 Reporting limit, 0.527
147-flooring-802	100 level, ramp 39	12" x 12" light grey vinyl floor tile mastic	None detected Reporting limit, 1.85
149-flooring-727	100 level, sto 74	12" x 12" light grey vinyl floor tile mastic	4.04 Reporting limit, 1.85
165-flooring-673	100 level, cad 24	12" x 12" light grey vinyl floor tile mastic	126.8 Reporting limit, 5.30
166-flooring-685	100 level, faculty lounge	12" x 12" light grey vinyl floor tile mastic	160.4 Reporting limit, 4.96
168-flooring-689	100 level, robotic 27	12" x 12" light grey vinyl floor tile mastic	70.6 Reporting limit, 2.86
170-flooring-695	100 level, shop corridor	12" x 12" light grey vinyl floor tile mastic	13.26 Reporting limit, 1.18
171-flooring-800	100 level, catwalk access	12" x 12" light grey vinyl floor tile mastic	4.77 Reporting limit, 0.639
173-flooring-474	100 level, world language 102	12" x 12" light grey vinyl floor tile mastic	None detected Reporting limit, 1.41

Sample Number	Sampled Location	Material Description	Result (mg/kg or ppm)
175-flooring-480	100 level, world language 103	12" x 12" light grey vinyl floor tile mastic	2.213 Reporting limit, 0.327
179-flooring-496	100 level, world language 108	12" x 12" light grey vinyl floor tile mastic	0.867 Reporting limit, 0.567
183-flooring-520	100 level, child 114	12" x 12" light grey vinyl floor tile mastic	11.9 Reporting limit, 0.504
185-flooring-532	100 level, corridor	12" x 12" light grey vinyl floor tile mastic	95.4 Reporting limit, 5.08
187-flooring-536	100 level, life mgt. 116	12" x 12" light grey vinyl floor tile mastic	717 Reporting limit, 18.2
189-flooring-715	100 level, art 11	12" x 12" light grey vinyl floor tile mastic	0.519 Reporting limit, 0.377
193-flooring-777	100 level, band storage 35E	12" x 12" light grey vinyl floor tile mastic	None detected Reporting limit, 0.476
197-flooring-583	100 level, lecture hall	12" x 12" light grey vinyl floor tile mastic	208 Reporting limit, 7.60
21-flooring-6	500 level, room 501	12" x 12" light grey vinyl floor tile mastic	1.34 Reporting limit, 1.02
23-flooring-38	500 level, room 508	12" x 12" light grey vinyl floor tile mastic	53.54 Reporting limit, 2.00
24-flooring-54	500 level, room 516	12" x 12" light grey vinyl floor tile mastic	608.9 Reporting limit, 23.4
25-flooring-2	500 level, room 502	12" x 12" light grey vinyl floor tile mastic	5.80 Reporting limit, 1.89
38-flooring-129	400 level, room 421	12" x 12" light grey vinyl floor tile mastic	1.197 Reporting limit, 0.217
45-flooring-207	400 level, room 402	12" x 12" light grey vinyl floor tile mastic	None detected Reporting limit, 0.255
46-flooring-191	400 level, room 406	12" x 12" light grey vinyl floor tile mastic	1.09 Reporting limit, 0.673
47-flooring-165	400 level, room 414	12" x 12" light grey vinyl floor tile mastic	4.236 Reporting limit, 0.538
48-flooring-113	400 level, room 419	12" x 12" light grey vinyl floor tile mastic	None detected Reporting limit, 0.697
56-flooring-235	300 level, room 316	12" x 12" light grey vinyl floor tile mastic	2,599 Reporting limit, 57.1
69-flooring-309	300 level, room 302	12" x 12" light grey vinyl floor tile mastic	6.23 Reporting limit, 0.870
70-flooring-279	300 level, room 305	12" x 12" light grey vinyl floor tile mastic	348.7 Reporting limit, 12.0
74-flooring-263	300 level, room 312	12" x 12" light grey vinyl floor tile mastic	381.5 Reporting limit, 10.1
75-flooring-297	300 level, room 303	12" x 12" light grey vinyl floor tile mastic	2.375 Reporting limit, 0.687
76-flooring-271	300 level, room 308	12" x 12" light grey vinyl	166.2

Sample Number	Sampled Location	Material Description	Result (mg/kg or ppm)
		floor tile mastic	Reporting limit, 4.34
77-flooring-247	300 level, room 319	12" x 12" light grey vinyl floor tile mastic	1,070 Reporting limit, 22.0
86-flooring-211	400 level, room 401	12" x 12" light grey vinyl floor tile mastic	7.31 Reporting limit, 6.90
87-flooring-195	400 level, room 408	12" x 12" light grey vinyl floor tile mastic	20.05 Reporting limit, 0.760
88-flooring-141	400 level, room 422	12" x 12" light grey vinyl floor tile mastic	None detected Reporting Limit, 0.784
89-flooring-117	400 level, room 419B	12" x 12" light grey vinyl floor tile mastic	None detected Reporting limit, 0.676
8-flooring-88	500 level, room 538A	12" x 12" light grey vinyl floor tile mastic	124 Reporting limit, 6.30
90-flooring-157	400 level, room 418	12" x 12" light grey vinyl floor tile mastic	3.07 Reporting limit, 0.264
200-flooring-705	100 level, pe 496 SF	12" x 12" red vinyl floor tile mastic	1.68 Reporting limit, 0.472
91-flooring-390	200 level, room 215	12" x 12" white vinyl floor tile	None detected Reporting limit, 0.130
92-flooring-391	200 level, room 215	12" x 12" white vinyl floor tile mastic	None detected Reporting limit, 0.197
128-flooring-629	200 level, safe 231	12" x 12" white/grey specs mastic	2.02 Reporting limit, 0.787
7-flooring-95	500 level, stair A	4' grey cove base	3.100 Reporting limit, 0.855
14-flooring-89	500 level, room 538A	4" black cove base	0.965 Reporting limit, 0.188
105-flooring-340	200 level, office 269	4" black cove base	None detected Reporting limit, 0.163
153-flooring-568	100 level, cafeteria 69	4" black cove base	None detected Reporting limit, 2.05
106-flooring-341	200 level, office 269	4" black cove base glue	None detected Reporting limit, 0.187
116-flooring-385	200 level, reception 276	4" black cove base glue	None detected Reporting limit, 0.280
154-flooring-569	100 level, cafeteria 69	4" black cove base glue	None detected Reporting limit, 0.489
186-flooring-534	100 level, corridor	4" black cove base glue	0.954 Reporting limit, 0.211
188-flooring-538	100 level, life mgt. 116	4" black cove base glue	3.104 Reporting limit, 0.188
18-flooring-90	500 level, room 538A	4" black cove base glue	None detected Reporting limit, 0.551
201-flooring-546	100 level, corridor 73	4" black cove base glue	None detected

Sample Number	Sampled Location	Material Description	Result (mg/kg or ppm)
			Reporting limit, 0.221
15-flooring-85	500 level, room 538A	4" brown cove base	17.54 Reporting limit, 0.794
19-flooring-86	500 level, room 538A	4" brown cove base glue	10.81 Reporting limit, 0.377
119-flooring-614	200 level, conference 250	4" grey cove base	None detected Reporting limit, 0.184
145-flooring-811	Basement, corridor	4" grey cove base	0.537 Reporting limit, 0.225
157-flooring-598	100 level, ell 354	4" grey cove base	3.189 Reporting limit, 0.608
17-flooring-92	500 level, room 539A	4" grey cove base	1.262 Reporting limit, 0.216
59-flooring-332	300 level, corridor 334	4" grey cove base	1.735 Reporting limit, 0.182
103-flooring-418	200 level, special ed. 220	4" grey cove base	0.286 Reporting limit, 0.197
44-flooring-122	400 level, room 419A	4" grey cove base	0.215 Reporting limit, 0.151
95-flooring-362	200 level, office 271	4" grey cove base	None detected Reporting limit, 0.182
104-flooring-419	200 level, special ed. 220	4" grey cove base glue	0.286 Reporting limit, 0.167
109-flooring-442	200 level, special ed. 210	4" grey cove base glue	None detected Reporting limit, 0.552
110-flooring-454	200 level, special ed. 210	4" grey cove base glue	0.324 Reporting limit, 0.159
111-flooring-393	200 level, room 215	4" grey cove base glue	0.343 Reporting limit, 0.270
117-flooring-377	200 level, conference 264	4" grey cove base glue	2.96 Reporting limit, 0.463
118-flooring-623	200 level, main office 242	4" grey cove base glue	None detected Reporting limit, 0.604
120-flooring-639	200 level, nurse office 230	4" grey cove base glue	1.750 Reporting limit, 0.305
13-flooring-93	500 level, room 539A	4" grey cove base glue	0.833 Reporting limit, 0.185
148-flooring-804	100 level, ramp 39	4" grey cove base glue	None detected Reporting limit, 0.238
150-flooring-729	100 level, sto 74	4" grey cove base glue	0.550 Reporting limit, 0.426
160-flooring-711	100 level, corridor 52	4" grey cove base glue	2.253 Reporting limit, 0.881
162-flooring-820	100 level, gym hall	4" grey cove base glue	None detected Reporting limit, 1.12

Sample Number	Sampled Location	Material Description	Result (mg/kg or ppm)
164-flooring-671	100 level, cad 24	4" grey cove base glue	0.454 Reporting limit, 0.172
167-flooring-687	100 level, faculty lounge	4" grey cove base glue	1.347 Reporting limit, 0.458
169-flooring-691	100 level, robotic 27	4" grey cove base glue	1.821 Reporting limit, 0.217
178-flooring-494	100 level, office 107	4" grey cove base glue	0.450 Reporting limit, 0.432
180-flooring-498	100 level, world language 108	4" grey cove base glue	0.787 Reporting limit, 0.269
182-flooring-514	100 level, language office 119	4" grey cove base glue	9.04 Reporting limit, 0.926
184-flooring-522	100 level, child 114	4" grey cove base glue	None detected Reporting limit, 0.268
202-flooring-591	100 level, corridor 107	4" grey cove base glue	3.70 Reporting limit, 0.301
203-flooring-739	100 level, chorus	4" grey cove base glue	1.457 Reporting limit, 0.512
204-flooring-792	100 level, ad office 35	4" grey cove base glue	0.323 Reporting limit, 0.161
30-flooring-101	500 level, room 534	4" grey cove base glue	0.894 Reporting limit, 0.241
43-flooring-123	400 level, room 419A	4" grey cove base glue	0.439 Reporting limit, 0.185
60-flooring-333	300 level, corridor 334	4" grey cove base glue	0.927 Reporting limit, 0.295
68-flooring-327	300 level, lobby 340	4" grey cove base glue	0.598 Reporting limit, 0.195
79-flooring-119	400 level, room 419B	4" grey cove base glue	08.64 Reporting limit, 0.378
80-flooring-131	400 level, room 421	4" grey cove base glue	1.851 Reporting limit, 0.197
96-flooring-363	200 level, office 271	4" grey cove base glue	0.346 Reporting limit, 0.190
146-flooring-812	Basement, corridor	4" grey cove base glue	0.631 Reporting limit, 0.259
158-flooring-599	100 level, ell 354	4" grey cove base glue	0.459 Reporting limit, 0.196
107-flooring-626	200 level, lobby 281	4" light brown cove base	4.43 Reporting limit, 0.189
108-flooring-627	200 level, lobby 281	4" light brown cove base glue	3.52 Reporting limit, 0.199
16-flooring-63	500 level, room 517	4" tan cove base	1.410 Reporting limit, 0.186
174-flooring-476	100 level, world	4" tan cove base	None detected

Sample Number	Sampled Location	Material Description	Result (mg/kg or ppm)
	language 102		Reporting limit, 0.702
39-flooring-200	400 level, corridor	4" tan cove base	0.350 Reporting limit, 0.187
40-flooring-201	400 level, corridor	4" tan cove base	0.362 Reporting limit, 0.171
61-flooring-256	300 level, corridor 321	4" tan cove base	2.17 Reporting limit, 0.397
62-flooring-257	300 level, corridor 321	4" tan cove base	3.30 Reporting limit, 0.604
63-flooring-311	300 level, room 302	4" tan cove base	0.732 Reporting limit, 0.198
64-flooring-281	300 level, room 305	4" tan cove base	12.9 Reporting limit, 0.938
65-flooring-269	300 level, room 310	4" tan cove base	2.053 Reporting limit, 0.328
66-flooring-245	300 level, room 317	4" tan cove base	1.554 Reporting limit, 0.306
67-flooring-253	Stair	4" tan cove base	None detected Reporting limit, 1.10
20-flooring-64	500 level, room 517	4" tan cove base glue	1.547 Reporting limit, 0.197
26-flooring-4	500 level, room 502	4" tan cove base glue	0.631 Reporting limit, 0.412
27-flooring-16	500 level, room 503	4" tan cove base glue	0.688 Reporting limit, 0.177
28-flooring-32	500 level, room 507	4" tan cove base glue	1.615 Reporting limit, 0.180
29-flooring-60	500 level, room 518	4" tan cove base glue	0.780 Reporting limit, 0.196
81-flooring-147	400 level, room 420	4" tan cove base glue	1.031 Reporting limit, 0.173
82-flooring-159	400 level, room 418	4" tan cove base glue	0.478 Reporting limit, 0.180
83-flooring-175	400 level, room 410	4" tan cove base glue	2.134 Reporting limit, 0.195
84-flooring-213	400 level, room 401	4" tan cove base glue	2.069 Reporting limit, 0.178
85-flooring-229	400 level, lobby 340	4" tan cove base glue	1.36 Reporting limit, 0.746
112-flooring-433	200 level, vestibule 258	6" black cove base	None detected Reporting limit, 0.142
113-flooring-434	200 level, vestibule 258	6" black cove base glue	None detected Reporting limit, 0.253
114-flooring-437	200 level, main corridor	6" grey cove base	0.437 Reporting limit, 0.200

Sample Number	Sampled Location	Material Description	Result (mg/kg or ppm)
115-flooring-438	200 level, main corridor	6" grey cove base glue	0.196 Reporting limit, 0.159
42-flooring-220	400 level, corridor 428	6" tan cove base	1.845 Reporting limit, 0.192
41-flooring-221	400 level, corridor 428	6" tan cove base glue	0.241 Reporting limit, 0.240
192-flooring-751	100 level, band room 13	9x9 tan vinyl floor tile mastic	None detected Reporting limit, 0.897
191-flooring-737	100 level, chorus 12	9x9 tan vinyl floor tile mastic	0.976 Reporting limit, 0.562
36	Auditorium	Auditorium seats	None detected Reporting limit, 1.0
123-flooring-424	200 level, storage 218	Black carpet mastic	0.979 Reporting limit, 0.186
0415EMM-60	Auditorium catwalk	Black cement on ductwork	11 Reporting limit, 3.8
0415EMM-61	Auditorium catwalk	Black cement on ductwork	11 Reporting limit, 3.8
0415EMM-62	Auditorium catwalk	Black cement on ductwork	11 Reporting limit, 3.5
0415EMM-42	Boiler room	Black sealer	1.2 Reporting limit, 0.79
0415EMM-43	Boiler room	Black sealer	1.4 Reporting limit, 0.79
0415EMM-44	Boiler room	Black sealer	1.4 Reporting limit, 0.82
93-flooring-412	200 level, room 219	Blue carpet flooring material	6.131 Reporting limit, 0.389
94-flooring-413	200 level, room 219	Blue carpet flooring material	None detected Reporting limit, 0.143
138-flooring-436	200 level, main corridor	Blue carpet flooring material glue	None detected Reporting limit, 0.215
121-flooring	200 level, special ed. 210	Blue carpet glue	2.39 Reporting limit, 0.412
127-flooring-649	200 level, conference 238	Blue carpet mastic	1.962 Reporting limit, 0.377
49-flooring-324	300 level, lobby 340	Blue rubber floor tiles	2.727 Reporting limit, 0.182
50-flooring-325	300 level, lobby 340	Blue rubber floor tiles glue	63.08 Reporting limit, 1.77
78-flooring-295	Stair	Blue rubber floor tiles glue	11.0 Reporting limit, 1.31
101-flooring-467	200 level, stair by room 212	Blue rubber flooring material	5.81 Reporting limit, 0.461
143-flooring-809	Basement, corridor	Blue rubber flooring	10.8

Sample Number	Sampled Location	Material Description	Result (mg/kg or ppm)
		material	Reporting limit, 0.863
2-flooring-94	500 level, stair A	Blue rubber flooring material	0.307 Reporting limit, 0.197
102-flooring-468	200 level, stair by room 212	Blue rubber flooring material mastic	17.20 Reporting limit, 0.801
144-flooring-810	Basement, corridor	Blue rubber flooring material mastic	31.8 Reporting limit, 0.815
33-flooring-222	400 level, stair	Blue rubber flooring tile	8.82 Reporting limit, 0.182
37-flooring-223	400 level, stair	Blue rubber flooring tile glue	42.26 Reporting limit, 3.27
73-flooring-251	Stair	Blue rubber tiles floor material glue	1.15 Reporting limit, 0.495
194-flooring-769	100 level, music 14	Carpet floor material glue	None detected Reporting limit, 0.354
57-flooring-290	300 level, corridor	Carpet flooring material	135.66 Reporting limit, 2.84
137-flooring-399	200 level, special ed. 214	Carpet flooring material glue	1.44 Reporting limit, 0.194
172-flooring-798	100 level, auditorium 33	Carpet flooring material glue	None detected Reporting limit, 0.239
58-flooring-291	300 level, corridor	Carpet flooring material glue	78.67 Reporting limit, 2.67
32	500 level	Carpet glue	2.2 Reporting limit, 0.70
40	400 level	Carpet glue	3.0 Reporting limit, 1.0
44	300 level	Carpet glue	9.3 Reporting limit, 0.53
4-flooring-110	500 level, room 528	Carpet multi-color	2.92 Reporting limit, 0.191
51-flooring-330	300 level, corridor 334	Carpet pink flooring material	23.15 Reporting limit, 0.752
52-flooring-331	300 level, corridor 334	Carpet pink flooring material glue	31.11 Reporting limit, 1.11
72-flooring-323	300 level, media 335	Carpet pink/blue floor material glue	49.45 Reporting limit, 2.30
0415EMM-48	258 vestibule	Caulk for bench	None detected Reporting limit, 0.80
0415EMM-49	258 vestibule	Caulk for bench	None detected Reporting limit, 0.72
0415EMM-50	258 vestibule	Caulk for bench	None detected Reporting limit, 0.72
0415EMM-54	100 level – 101	Caulk for interior door frame	6.2 Reporting limit, 0.72

Sample Number	Sampled Location	Material Description	Result (mg/kg or ppm)
0415EMM-55	300 level - 304	Caulk for interior door frame	5 Reporting limit, 0.96
0415EMM-56	500 level - 502	Caulk for interior door frame	5.2 Reporting limit, 0.69
26	Cafeteria roof	Caulk on louvers	1.4 Reporting limit, 0.72
28	Hall connector roof	Caulk on metal flashing	None detected Reporting limit, 0.70
33	500 level	Ceiling tiles	None detected Reporting limit, 0.33
38	400 level	Ceiling tiles	0.089 Reporting limit, 0.071
43	300 level	Ceiling tiles	None detected Reporting limit, 0.91
49	300 level	Door frame caulk	None detected Reporting limit, 0.76
35	500 level	Expansion joint caulk	93,000 Reporting limit, 17,000
39	400 level	Fiberboard	0.68 Reporting limit, 0.14
30	500 level	Floor tile and mastic	None detected Reporting limit, 0.91
41	400 level	Floor tile and mastic	1.0 Reporting limit, 0.083
45	300 level	Floor tile and mastic	1.0 Reporting limit, 0.79
0415EMM-45	258 vestibule	Interior door frame caulk	None detected Reporting limit, 0.76
0415EMM-46	258 vestibule	Interior door frame caulk	None detected Reporting limit, 0.83
0415EMM-47	258 vestibule	Interior door frame caulk	None detected Reporting limit, 0.68
0415EMM-51	Gym B 54	Interior door frame caulk	5.2 Reporting limit, 0.79
0415EMM-52	Gym B 54	Interior door frame caulk	3.4 Reporting limit, 0.92
0415EMM-53	Gym B 54	Interior door frame caulk	3.5 Reporting limit, 0.61
0508EMM-02	300 level (321 Corridor) Above 500 level Corridor	Interior Expansion Joint Caulk	37,000 Reporting limit, 3700
0415EMM-57	100 level – 101	Interior window frame caulk	Reporting limit, 0.70
0415EMM-58	300 level - 304	Interior window frame caulk	0.77 Reporting limit, 0.87

Sample Number	Sampled Location	Material Description	Result (mg/kg or ppm)
0415EMM-59	500 level - 502	Interior window frame caulk	9.7 Reporting limit, 0.83
12-27-IWJCS-61	Interior	Interior window joint caulk	None detected Reporting limit, 0.82
12-27-IWJCS-62	Interior	Interior window joint caulk	None detected Reporting limit, 0.78
12-27-IWJCS-63	Interior	Interior window joint caulk	None detected Reporting limit, 0.81
47	300 level	Internal window caulk	2.17 Reporting limit, 0.83
0508EMM-06	100 Level-ELL 31A	Mastic Associated with 12" x 12" Blue tile	780 Reporting limit 120
0508EMM-03	400 Level-Room 414	Mastic Associated with 12" x 12" Light Grey Tile	0.72 Reporting limit 0.35
0508EMM-04	300 Level-Room 316	Mastic Associated with 12" x 12" Light Grey Tile	12 Reporting limit 1.6
0508EMM-05	200 Level-Lobby 281	Mastic Associated with 12" x 12" Light Grey Tile	1.2 Reporting limit 0.32
126-flooring-653	200 level, secretary 232	Multi carpet flooring material mastic	None detected Reporting limit, 0.664
12-flooring-111	500 level, room 528	Multi-color carpet - mastic	33.4 Reporting limit, 2.14
10-flooring-79	500 level, room 538B	Multi-color carpet flooring material	203.6 Reporting limit, 4.96
136-flooring-452	200 level, secretary 211	Multi-color carpet flooring material mastic	None detected Reporting limit, 0.766
140-flooring-604	200 level, teacher's waiting room	Multi-color carpet flooring material mastic	None detected Reporting limit, 0.995
122-flooring-466	200 level, corridor ramp	Multi-color carpet mastic	None detected Reporting limit, 1.21
35-flooring-219	400 level, room 428	Multi-color pink carpet – glue	0.523 Reporting limit, 0.255
6-flooring-80	500 level, room 538B	Multi-color pink carpet – glue	4.74 Reporting limit, 0.156
31-flooring-218	400 level, room 428	Multi-color pink carpet flooring material	1.075 Reporting limit, 0.181
44	300 level, hallway adj. to bath 330	Paint on (CMU) Block wall	3,366 Reporting limit, 105
0415EMM-01	300 level, hallway adj. to bath 330	Paint on (CMU) Block wall	None detected Reporting limit, 0.58
44 Confirmatory	300 level, hallway adj. to bath 330	Paint on (CMU) Block wall	None detected Reporting limit 0.086
0415EMM-06A	Cafeteria	Paint on brick	None detected Reporting limit, 0.52
0415EMM-05	Gymnasium	Paint on brick	None detected

Sample Number	Sampled Location	Material Description	Result (mg/kg or ppm)
			Reporting limit, 0.38
0415EMM-07A	Corridor adj. room 15	Paint on brick	None detected Reporting limit, 0.38
0415EMM-01A	300 level, hallway adj. to bath 330	Paint on Brick wall	None detected Reporting limit, 0.49
0415EMM-02	1967 - Band	Paint on CMU	0.47 Reporting limit, 0.32
0415EMM-03	1967 – corridor adj. band	Paint on CMU	None detected Reporting limit, 0.36
0415EMM-04	1967 – Chorus	Paint on CMU	0.87 Reporting limit, 0.44
0415EMM-05A	Locker room	Paint on CMU	1.2 Reporting limit, 0.61
0415EMM-06	Cafeteria	Paint on CMU	None detected Reporting limit, 0.42
0415EMM-07	Corridor adj. room 15	Paint on CMU	None detected Reporting limit, 0.33
37	400 level	Paint on plaster	4.9 Reporting limit, 0.57
48	300 level	Paint on plaster	None detected Reporting limit, 0.40
1	500 level, room 502	Paint on plaster wall	5.129 Reporting limit, 0.784
2	500 level, room 501	Paint on plaster wall	1.29 Reporting limit, 7.72
3	500 level, room 504	Paint on plaster wall	6.07 Reporting limit, 2.15
4	500 level, corridor 528	Paint on plaster wall	7.58 Reporting limit, 1.18
5	500 level, room 503	Paint on plaster wall	0.513 Reporting limit, 0.501
6	500 level, stairwell adj. room 504	Paint on plaster wall	6.01 Reporting limit, 1.83
7	500 level, closet room 532	Paint on plaster wall	3.37 Reporting limit, 0.658
8	400 level, stairwell adj. to room 421	Paint on plaster wall	1.46 Reporting limit, 0.660
9	400 level, room 421	Paint on plaster wall	3.91 Reporting limit, 0.746
10	400 level, office 421A	Paint on plaster wall	0.903 Reporting limit, 0.194
11	400 level, room 419	Paint on plaster wall	0.959 Reporting limit, 0.375
12	400 level, room 419B	Paint on plaster wall	1.650 Reporting limit, 0.183

Sample Number	Sampled Location	Material Description	Result (mg/kg or ppm)
13	400 level, prep room 410A	Paint on plaster wall	3.34 Reporting limit, 0.615
14	400 level, room 408	Paint on plaster wall	7.00 Reporting limit, 0.325
15	400 level, room 406	Paint on plaster wall	5.77 Reporting limit, 1.30
16	400 level, room 404	Paint on plaster wall	1.411 Reporting limit, 0.412
17	400 level, prep room 402A	Paint on plaster wall	3.73 Reporting limit, 0.419
18	400 level, room 402	Paint on plaster wall	1.47 Reporting limit, 1.33
19	400 level, stairwell adj. to room 402	Paint on plaster wall	None detected Reporting limit, 0.930
20	400 level, hallway outside room 401	Paint on plaster wall	1.18 Reporting limit, 1.24
21	400 level, room 401	Paint on plaster wall	3.93 Reporting limit, 3.80
22	400 level, storage room 403A	Paint on plaster wall	5.599 Reporting limit, 0.191
23	400 level, room 403	Paint on plaster wall	3.49 Reporting limit, 0.277
24	400 level, bathroom 435	Paint on plaster wall	4.91 Reporting limit, 4.26
25	400 level, room 410	Paint on plaster wall	7.59 Reporting limit, 2.70
26	400 level, room 412	Paint on plaster wall	2.149 Reporting limit, 0.676
27	400 level, janitor's closet 425	Paint on plaster wall	7.23 Reporting limit, 1.57
28	400 level, prep room 415	Paint on plaster wall	5.56 Reporting limit, 5.71
29	400 level, room 417	Paint on plaster wall	3.777 Reporting limit, 0.199
30	400 level, prep/storage room 419A	Paint on plaster wall	3.243 Reporting limit, 0.264
31	400 level, room 414	Paint on plaster wall	1.11 Reporting limit, 0.889
32	400 level, room 416	Paint on plaster wall	1.02 Reporting limit, 0.971
33	400 level, room 418	Paint on plaster wall	6.301 Reporting limit, 0.548
34	400 level, room 420	Paint on plaster wall	3.02 Reporting limit, 0.877
35	400 level, room 422	Paint on plaster wall	6.90

Sample Number	Sampled Location	Material Description	Result (mg/kg or ppm)
			Reporting limit, 0.341
36	400 level, room 431	Paint on plaster wall	3.63 Reporting limit, 0.985
37	400 level, bookshop room 433	Paint on plaster wall	0.665 Reporting limit, 0.442
38	500 level, janitor's closet room 531	Paint on plaster wall	33.09 Reporting limit, 4.55
39	300 level, room 302	Paint on plaster wall	6.26 Reporting limit, 0.477
40	300 level, room 304	Paint on plaster wall	5.34 Reporting limit, 0.683
41	300 level, room 303	Paint on plaster wall	3.56 Reporting limit, 0.943
42	300 level, room 301	Paint on plaster wall	3.88 Reporting limit, 0.803
43	300 level, hallway outside room 301	Paint on plaster wall	16.02 Reporting limit, 0.510
46	200 level, office room 211C	Paint on plaster wall	1.93 Reporting limit, 4.08
47	200 level, secretary room 211	Paint on plaster wall	None detected Reporting limit, 8.70
48	200 level, office room 211A	Paint on plaster wall	3.07 Reporting limit, 1.40
49	200 level, office room 216	Paint on plaster wall	3.52 Reporting limit, 0.535
50	200 level, room 217	Paint on plaster wall	2.724 Reporting limit, 0.490
51	200 level, room 219	Paint on plaster wall	1.789 Reporting limit, 0.198
52	200 level, room 221	Paint on plaster wall	3.03 Reporting limit, 0.536
53	200 level, room 222	Paint on plaster wall	5.29 Reporting limit, 0.592
54	200 level, room 220	Paint on plaster wall	4.698 Reporting limit, 0.254
55	200 level, storage room 218	Paint on plaster wall	4.216 Reporting limit, 0.195
56	200 level, room 216	Paint on plaster wall	4.998 Reporting limit, 0.466
57	200 level, room 214	Paint on plaster wall	5.16 Reporting limit, 1.25
58	200 level, hallway outside room 214	Paint on plaster wall	1.48 Reporting limit, 2.90
60	200 level, room 210	Paint on plaster wall	6.62 Reporting limit, 1.40

Sample Number	Sampled Location	Material Description	Result (mg/kg or ppm)
62	100 level, room 104	Paint on plaster wall	5.97 Reporting limit, 1.94
63	100 level, room 102	Paint on plaster wall	2.92 Reporting limit, 1.21
64	100 level, room 103	Paint on plaster wall	3.33 Reporting limit, 1.90
65	100 level, room 101	Paint on plaster wall	3.22 Reporting limit, 0.766
66	100 level, auditorium room 33	Paint on plaster wall	4.98 Reporting limit, 0.295
67	100 level, auditorium catwalk access	Paint on plaster wall	4.97 Reporting limit, 0.290
68	200 level, room 270	Paint on plaster wall	14.82 Reporting limit, 0.763
69	200 level, room 265	Paint on plaster wall	8.92 Reporting limit, 0.800
70	200 level, room 268	Paint on plaster wall	1.33 Reporting limit, 2.13
71	200 level, room 238	Paint on plaster wall	3.43 Reporting limit, 0.498
72	200 level, room 236	Paint on plaster wall	3.55 Reporting limit, 0.202
73	200 level, room 250	Paint on plaster wall	5.43 Reporting limit, 0.411
74	200 level, server room 276	Paint on plaster wall	3.63 Reporting limit, 1.10
75	200 level, nurse's sick room 224	Paint on plaster wall	1.53 Reporting limit, 0.643
45	300 level, bathroom 330	Paint on plaster wall	20.77 Reporting limit, 1.79
59	200 level, room 212	Paint on plaster wall	3.86 Reporting limit, 0.743
61	200 level, storage room 257	Paint on plaster wall	12.26 Reporting limit, 0.840
34	500 level	Paint on wallboard	None detected Reporting limit, 0.45
71-flooring-255	300 level, corridor 321	Pink carpet floor material glue	83.2 Reporting limit, 3.02
163-flooring-669	100 level, cad 24	Pink carpet flooring material glue	47.5 Reporting limit, 1.25
195-flooring-794	100 level, athletic office 35C	Pink carpet flooring material glue	None detected Reporting limit, 4.00
0415EMM-32	Exterior pool expansion joint	Red caulk at pool expansion joint	2.2 Reporting limit, 0.77
0415EMM-33	Exterior pool expansion	Red caulk at pool expansion	None detected

Sample Number	Sampled Location	Material Description	Result (mg/kg or ppm)
	joint	joint	Reporting limit, 0.81
1	Roof 1	Roof – main field	None detected Reporting limit, 0.48
3	Wood shop roof	Roof – main field	None detected Reporting limit, 0.45
6	Lower Wood shop roof	Roof – main field	None detected Reporting limit, 0.48
7	Lower gym roof	Roof – main field	None detected Reporting limit, 0.50
9	Upper gym roof	Roof – main field	None detected Reporting limit, 0.38
11	Hall connector roof	Roof – main field	None detected Reporting limit, 0.45
13	Cafeteria roof	Roof – main field	None detected Reporting limit, 0.50
15	Wrestling gym roof	Roof – main field	None detected Reporting limit, 0.45
16	Locker room roof	Roof – main field	None detected Reporting limit, 0.48
18	Art and Band room	Roof – main field	None detected Reporting limit, 0.38
20	Pool roof	Roof – main field	1.0 Reporting limit, 0.48
22	Roof F	Roof – main field	None detected Reporting limit, 0.87
23	Entrance canopy roof	Roof – main field	None detected Reporting limit, 1.0
25	Pitched roof	Roof – main field	None detected Reporting limit, 0.71
2	Roof 1	Roof flashing	None detected Reporting limit, 0.48
4	Wood shop roof	Roof flashing	None detected Reporting limit, 0.48
5	Lower Wood shop roof	Roof flashing	None detected Reporting limit, 0.26
8	Lower gym roof	Roof flashing	None detected Reporting limit, 0.43
10	Upper gym roof	Roof flashing	None detected Reporting limit, 0.45
12	Hall connector roof	Roof flashing	None detected Reporting limit, 0.50
14	Cafeteria roof	Roof flashing	None detected Reporting limit, 0.45
17	Locker room roof	Roof flashing	None detected Reporting limit, 0.38

Sample Number	Sampled Location	Material Description	Result (mg/kg or ppm)
19	Art and Band room	Roof flashing	None detected Reporting limit, 0.45
21	Pool roof	Roof flashing	None detected Reporting limit, 0.83
24	Entrance canopy roof	Roof flashing	None detected Reporting limit, 1.0
27	Cafeteria pitched roof	Roof flashing	None detected Reporting limit, 1.0
29	Lower gym roof	Roof tar on metal flashing	None detected Reporting limit, 0.67
176-flooring-482	100 level, stair	Rubber blue floor tile glue	1.798 Reporting limit, 0.445
135-flooring-462	200 level, stair by room 222	Rubber blue flooring material mastic	1.204 Reporting limit, 0.187
0415EMM-63	Auditorium catwalk	Seam sealer ductwork	10 Reporting limit, 4.4
0415EMM-64	Auditorium catwalk	Seam sealer ductwork	13 Reporting limit, 7.3
0415EMM-65	Auditorium catwalk	Seam sealer ductwork	15 Reporting limit, 7.9
50	Auditorium	Textured wall finish	None detected Reporting limit, 0.062
31	500 level	Vinyl base and glue	3.4 Reporting limit, 0.68
42	400 level	Vinyl base and glue	30 Reporting limit, 4.5
46	300 level	Vinyl base and glue	1.2 Reporting limit, 0.69

Laboratory analysis results and chain of custody are included in *Appendix* for source materials. We should summarize by material type which products are PCB Bulk Products, which are excluded PCB Products, and which are PCB Remediation Waste.

2.2.2 Adjacent Porous Materials

Sample Analysis Results

The analysis results of adjacent substrate materials are summarized in Table 2.2. Results in bold exceed clean-up criteria established.

Table 2.2

Sample Number	Sampled Location	Material Description	Sample Depth	Result (mg/kg)
0415EMM-66	300 level corridor - adj. bath 330	CMU wall (associated with paint, 3,366 PPM, reporting limit, 105 PPM)	0.0" – 0.5"	None detected Reporting limit, 0.16
0415EMM-68	500 level -	Plaster	< 0.5"	None detected

Sample Number	Sampled Location	Material Description	Sample Depth	Result (mg/kg)
	janitors closet 531	(associated with paint, 33.09 PPM, reporting limit, 4.55 PPM)		Reporting limit, 0.32
0415EMM-69	200 level - 270	Plaster (associated with paint, 14.82 PPM, reporting limit, 0.763 PPM)	< 0.5"	None detected Reporting limit, 0.33
0416EMM-01A	500 level – 535 theater	Concrete floor (associated with 12" x 12" blue vinyl floor tile mastic, 370.8 PPM, reporting limit, 9.82)	0.0" – 0.5"	3.9 Reporting limit, 0.33
0416EMM-01B	500 level – 535 theater	Concrete floor (associated with 12" x 12" blue vinyl floor tile mastic, 370.8 PPM, reporting limit, 9.82)	0.5" – 1.0"	0.91 Reporting limit, 0.33
0416EMM-02A	500 level – 538B	Concrete floor (associated with multi-color carpet material, 203.6 PPM, reporting limit, 4.96 PPM)	0.0" – 0.5"	None detected Reporting limit, 0.33
0416EMM-03A	500 level - 516	Concrete floor (associated with 12" x 12" light grey vinyl floor tile mastic, 608.9 PPM, reporting limit, 23.4 PPM)	0.0" – 0.5"	None detected Reporting limit, 0.33
0416EMM-04A	400 level - stair	Concrete floor (associated with blue rubber flooring tile glue, 42.26 PPM, reporting limit, 3.27 PPM)	0.0" – 0.5"	None detected Reporting limit, 0.34
0416EMM-05A	400 level – stair	Concrete floor (associated with blue rubber flooring tile, 8.82 PPM, reporting limit, 0.182 PPM)	0.0" – 0.5"	None detected Reporting limit, 0.33
0416EMM-06A	400 level - 414	Concrete floor (associated with 12" x 12" light grey vinyl floor tile mastic, 4.236 PPM, reporting limit, 0.538 PPM)	0.0" – 0.5"	None detected Reporting limit, 0.34
0416EMM-07A	300 level - 332	Concrete floor (associated with 12" x 12" light blue vinyl floor tile mastic, 309.3 PPM, reporting limit, 10.7 and 12" x 12" light blue vinyl floor tile, 1.618 PPM, reporting limit, 0.139 PPM)	0.0" – 0.5"	None detected Reporting limit, 0.33
0416EMM-08A	300 level - 316	Concrete floor (associated with 12" x 12" light grey vinyl floor tile mastic, 2,599 PPM, reporting limit, 57.1 and 12" x 12" light grey vinyl floor tile, 33.24 PPM, reporting limit, 1.37 PPM)	0.0" – 0.5"	None detected Reporting limit, 0.33

Sample Number	Sampled Location	Material Description	Sample Depth	Result (mg/kg)
0416EMM-09A	300 level - corridor	Concrete floor (associated with carpet flooring material, 135.66 PPM, reporting limit, 2.84 PPM, and carpet flooring material glue, 78.67 PPM, reporting limit, 2.67 PPM)	0.0" – 0.5"	None detected Reporting limit, 0.32
0417EMM-10A	200 level - 219	Concrete floor (associated with blue carpet flooring material, 6.131 PPM, reporting limit, 0.389 PPM)	0.0" – 0.5"	None detected Reporting limit, 0.33
0417EMM-11A	200 level stair – adj. 212	Concrete floor (associated with blue rubber flooring material mastic, 17.20 PPM, reporting limit 0.801 PPM, and blue rubber flooring material, 5.81 PPM, reporting limit, 0.461 PPM)	0.0" – 0.5"	None detected Reporting limit, 0.33
0417EMM-12A	200 level – nurse 235	Concrete floor (associated with 12" x 12" light grey vinyl floor tile mastic, 5.364 PPM, reporting limit, 0.345 PPM)	0.0" – 0.5"	None detected Reporting limit, 0.33
0417EMM-13A	100 level – ell 31a	Concrete floor (associated with 12" x 12" blue vinyl floor tile mastic, 3,010 PPM, reporting limit, 68.1 PPM and 12" x 12" blue vinyl floor tile, 23.8 PPM, reporting limit, 0.766 PPM)	0.0" – 0.5"	None detected Reporting limit, 0.33
0417EMM-14A	100 level - 107	Concrete floor (associated with 12" x 12" blue vinyl floor tile mastic, 3,350 PPM, reporting limit, 68.3)	0.0" – 0.5"	None detected Reporting limit, 0.32
0417EMM-15A	100 level – audio visual	Concrete floor (associated with 12" x 12" light grey vinyl floor tile mastic, 160.4 PPM, reporting limit, 4.96 PPM)	0.0" – 0.5"	None detected Reporting limit, 0.33
0417EMM-16A	100 level – ell 31a	CMU wall (associated with 4" grey cove base, 3.189 PPM, reporting limit, 0.608 PPM)	0.0" – 0.5"	None detected Reporting limit, 0.32
0417EMM-17A	100 level – language office 119	CMU wall (associated with 4" grey cove base glue, 9.04 PPM, reporting limit, 0.926 PPM)	0.0" – 0.5"	None detected Reporting limit, 0.33
0417EMM-18A	100 level –office 107	CMU wall (associated with 4" grey cove base glue, 3.70 PPM, reporting limit,	0.0" – 0.5"	None detected Reporting limit, 0.33

Sample Number	Sampled Location	Material Description	Sample Depth	Result (mg/kg)
		0.301 PPM)		
0418EMM-01A	500 level corridor – expansion joint	CMU wall (associated with expansion joint caulk, 93,000 PPM, reporting limit, 17,000 PPM)	0.0” – 0.5”	65 Reporting limit, 13
0418EMM-01B	500 level corridor – expansion joint	CMU wall (associated with expansion joint caulk, 93,000 PPM, reporting limit, 17,000 PPM)	0.5” – 1.0”	1.5 Reporting limit, 0.32
0508EMM-01A	500 level corridor – expansion joint	CMU wall (associated with expansion joint caulk, 93,000 PPM, reporting limit, 17,000 PPM)	4”	ND Reporting limit, 0.34
0508EMM-01B	500 level corridor – expansion joint	CMU wall (associated with expansion joint caulk, 93,000 PPM, reporting limit, 17,000 PPM)	6”	ND Reporting limit, 0.34
0508EMM-01C	500 level corridor – expansion joint	CMU wall (associated with expansion joint caulk, 93,000 PPM, reporting limit, 17,000 PPM)	8”	ND Reporting limit, 0.33
0418EMM-02A	Room 310 partition window	CMU wall (associated with interior fixed partition window caulk, 7.8 PPM, reporting limit, 0.95 PPM)	0.0” – 0.5”	None detected Reporting limit, 0.40
0418EMM-03A	Below asst. principal	Exterior brick adj. vent (associated with exterior white brittle exhaust vent caulk, 1.5 PPM, reporting limit, 0.82 PPM)	0.0” – 0.5”	None detected Reporting limit, 0.33
0418EMM-04A	Below asst. principal	Exterior brick adj. door (associated with exterior beige brittle door frame caulk, 5.0 PPM, reporting limit, 0.76 PPM)	0.0” – 0.5”	None detected Reporting limit, 0.33
0419EMM-01	Corridor adj. 422	Plaster (associated with paint, 19 PPM, reporting limit, 2.8 PPM)	< 0.5”	3.8 Reporting limit, 0.48
0419EMM-02	Room 101 – adj. door frame	Plaster (associated with caulk for interior door frame, 2.4 PPM, reporting limit, 0.70 PPM)	< 0.5”	None detected Reporting limit, 0.71

Sample Number	Sampled Location	Material Description	Sample Depth	Result (mg/kg)
0419EMM-03A	Gym B – adj. door frame	Interior brick (associated with interior door frame caulk, 5.2 PPM, reporting limit, 0.79 PPM)	0.0” – 0.5”	None detected Reporting limit, 0.33
0419EMM-04A	Exterior pool adj. expansion joint	Exterior brick (associated with red caulk at pool expansion joint, 2.2 PPM, reporting limit, 0.77 PPM)	0.0” – 0.5”	None detected Reporting limit, 0.33
0419EMM-05A	Boiler room	Concrete wall (associated with black sealer, 1.4 PPM, reporting limit, 0.82 PPM)	0.0” – 0.5”	None detected Reporting limit, 0.32
0419EMM-06A	Exterior – adj. fabrication	Exterior brick (associated with exterior beige window/door casing caulk, 1.2 PPM, reporting limit, 0.82 PPM)	0.0” – 0.5”	None detected Reporting limit, 0.32
0419EMM-07	200 level – room 217 adj. door	Plaster (associated with interior white residual door casing caulk, 4.4 PPM, reporting limit, 0.79 PPM)	< 0.5”	None detected Reporting limit, 0.51
0419EMM-08	500 level – room 502 adj. window	Plaster (associated with interior window frame caulk, 9.7 PPM, reporting limit, 0.83 PPM)	< 0.5”	None detected Reporting limit, 0.38

Note sampling was limited to maximum depth of 1”. Laboratory analysis results and chain of custody are included in *Appendix B* for Adjacent Porous Material bulk samples.

2.2.3 Adjacent Non-Porous Materials Sample Analysis Results

No samples were collected of non-porous materials such as steel lintels. Steel structural components to remain such as steel lintels shall be cleaned to meet required visual standards and wipe sampling criteria for high occupancy use.

2.2.4 Adjacent Soil Sample Analysis Results

The results indicate that PCBs detected in the soil at the perimeter of the building at depths of 0-4 and 4-8 inches > 1ppm at select locations shown in bold text only.

Table 2.3

Sample Number	Sampled Location	Sub-sample	Sample Depth	Result (mg/kg)
1	East elevation 8	3	0-4"	None detected Reporting limit, 0.12
2	East elevation 9	3	0-4"	None detected Reporting limit, 0.12
3	East elevation 9	1	0-4"	None detected Reporting limit, 0.12
4	East elevation 10	2	0-4"	None detected Reporting limit, 0.12
5	East elevation 12	5	0-4"	None detected Reporting limit, 0.12
6	East elevation 1	6	0-4"	None detected Reporting limit, 0.13
7	East elevation 1	6	0-4"	None detected Reporting limit, 0.13
8	East elevation 1	2	0-4"	None detected Reporting limit, 0.12
9	East elevation 1	5	0-4"	None detected Reporting limit, 0.12
10	East elevation 1	5	0-4"	None detected Reporting limit, 0.13
11	East elevation 1	4	0-4"	None detected Reporting limit, 0.13
12	South elevation 6	2	0-4"	None detected Reporting limit, 0.12
13	South elevation 15	5	0-4"	None detected Reporting limit, 0.13
14	South elevation 11	2	0-4"	0.2 Reporting limit, 0.13
15	South elevation 4	2	0-4"	None detected Reporting limit, 0.13
16	South elevation 3	4	0-4"	None detected Reporting limit, 0.14
17	South elevation 2	3	0-4"	None detected Reporting limit, 0.12
18	South elevation 2	2	0-4"	None detected Reporting limit, 0.11
19	South elevation 2	2	0-4"	None detected Reporting limit, 0.12
20	South elevation 3	3	0-4"	None detected Reporting limit, 0.12
21	South elevation 25	2	0-4"	None detected Reporting limit, 0.098

Sample Number	Sampled Location	Sub-sample	Sample Depth	Result (mg/kg)
22	South elevation 25	1	0-4"	None detected Reporting limit, 0.12
23	South elevation 25	1	0-4"	0.27 Reporting limit, 0.14
24	South elevation 27	1	0-4"	None detected Reporting limit, 0.13
25	South elevation 27	1	0-4"	None detected Reporting limit, 0.13
26	South elevation 29	1	0-4"	None detected Reporting limit, 0.14
27	South elevation 29	1	0-4"	None detected Reporting limit, 0.13
28	South elevation 29	1	0-4"	None detected Reporting limit, 0.13
29	South elevation 29	1	0-4"	None detected Reporting limit, 0.13
30	South elevation 24	1	0-4"	None detected Reporting limit, 0.12
31	South elevation 23	1	0-4"	None detected Reporting limit, 0.12
32	South elevation 23	1	0-4"	None detected Reporting limit, 0.12
33	South elevation 18	2	0-4"	None detected Reporting limit, 0.13
34	South elevation 18	1	0-4"	None detected Reporting limit, 0.12
35	South elevation 18	1	0-4"	None detected Reporting limit, 0.12
36	South elevation 18	1	0-4"	None detected Reporting limit, 0.13
37	South elevation 18	2	0-4"	None detected Reporting limit, 0.13
38	South elevation 18	1	0-4"	None detected Reporting limit, 0.13
39	South elevation 18	1	0-4"	None detected Reporting limit, 0.13
40	South elevation 18	1	0-4"	None detected Reporting limit, 0.13
41	South elevation 18	1	0-4"	None detected Reporting limit, 0.13
42	South elevation 18	2	0-4"	None detected Reporting limit, 0.12
43	South elevation 18	1	0-4"	None detected Reporting limit, 0.13
44	South elevation 18	2	0-4"	None detected Reporting limit, 0.13

Sample Number	Sampled Location	Sub-sample	Sample Depth	Result (mg/kg)
45	South elevation 18	1	0-4"	None detected Reporting limit, 0.13
46	South elevation 18	2	0-4"	None detected Reporting limit, 0.14
47	South elevation 18	2	0-4"	None detected Reporting limit, 0.13
48	West elevation 6	1	0-4"	None detected Reporting limit, 0.12
49	West elevation 12	6	0-4"	None detected Reporting limit, 0.13
50	West elevation 12	1	0-4"	None detected Reporting limit, 0.13
51	West elevation 12	1	0-4"	None detected Reporting limit, 0.13
52	West elevation 12	6	0-4"	None detected Reporting limit, 0.13
53	West elevation 12	1	0-4"	None detected Reporting limit, 0.13
54	West elevation 12	1	0-4"	None detected Reporting limit, 0.13
55	West elevation 12	1	0-4"	None detected Reporting limit, 0.12
56	West elevation 12	6	0-4"	None detected Reporting limit, 0.12
57	North elevation 33	1	0-4"	None detected Reporting limit, 0.12
58	North elevation 30	1	0-4"	0.23 Reporting limit, 0.13
59	North elevation 30	1	0-4"	3.5 Reporting limit, 0.48
60	North elevation 30	9	0-4"	None detected Reporting limit, 0.13
61	North elevation 26	3	0-4"	0.5 Reporting limit, 0.14
62	North elevation 26	3	0-4"	0.41 Reporting limit, 0.15
63	North elevation 26	3	0-4"	0.32 Reporting limit, 0.15
64	North elevation 26	1	0-4"	0.14 Reporting limit, 0.12
65	North elevation 26	1	0-4"	0.20 Reporting limit, 0.13
66	North elevation 26	1	0-4"	0.27 Reporting limit, 0.12
67	North elevation 23	1	0-4"	None detected Reporting limit, 0.13

Sample Number	Sampled Location	Sub-sample	Sample Depth	Result (mg/kg)
68	North elevation 23	1	0-4"	0.14 Reporting limit, 0.13
69	North elevation 23	3	0-4"	0.13 Reporting limit, 0.13
70	North elevation 23	3	0-4"	None detected Reporting limit, 0.13
71	North elevation 23	1	0-4"	None detected Reporting limit, 0.14
72	North elevation 23	1	0-4"	None detected Reporting limit, 0.14
73	North elevation 23	3	0-4"	0.14 Reporting limit, 0.14
74	North elevation 28	2	0-4"	0.20 Reporting limit, 0.14
75	North elevation 28	1	0-4"	None detected Reporting limit, 0.11
76	Courtyard elevation 9	7	0-4"	None detected Reporting limit, 0.13
77	Courtyard elevation 10	3	0-4"	0.33 Reporting limit, 0.13
78	Courtyard elevation 12	4	0-4"	None detected Reporting limit, 0.14
79	Courtyard elevation 2	10	0-4"	0.22 Reporting limit, 0.12
80	Courtyard elevation 2	1	0-4"	None detected Reporting limit, 0.14
81	Courtyard elevation 2	1	0-4"	None detected Reporting limit, 0.12
82	Courtyard elevation 6	4	0-4"	None detected Reporting limit, 0.12
83	Courtyard elevation 8	3	0-4"	None detected Reporting limit, 0.13
84	Courtyard elevation 1	4	0-4"	None detected Reporting limit, 0.17
85	Courtyard elevation 1	5	0-4"	None detected Reporting limit, 0.12
86	Courtyard elevation 1	4	0-4"	None detected Reporting limit, 0.13
87	Courtyard elevation 1	5	0-4"	None detected Reporting limit, 0.14
88	Courtyard elevation 1	5	0-4"	None detected Reporting limit, 0.11
89	Courtyard elevation 1	4	0-4"	None detected Reporting limit, 0.13
90	Courtyard elevation 18	9	0-4"	None detected Reporting limit, 0.13

Sample Number	Sampled Location	Sub-sample	Sample Depth	Result (mg/kg)
91	Courtyard elevation 14	4	0-4"	0.15 Reporting limit, 0.15
92	Courtyard elevation 15	3	0-4"	0.18 Reporting limit, 0.13
93	Courtyard elevation 15	3	0-4"	0.35 Reporting limit, 0.13
94	Courtyard elevation 15	1	0-4"	0.18 Reporting limit, 0.13
95	Courtyard elevation 15	1	0-4"	None detected Reporting limit, 0.14
96	Courtyard elevation 16	1	0-4"	0.26 Reporting limit, 0.12
97	Courtyard elevation 16	3	0-4"	0.67 Reporting limit, 0.12
98	Courtyard elevation 16	1	0-4"	None detected Reporting limit, 0.13
99	Courtyard elevation 16	3	0-4"	None detected Reporting limit, 0.12
100	North elevation 30	1	0-4"	0.47 Reporting limit, 0.12
101	North elevation 30	1	0-4"	None detected Reporting limit, 0.12
58A	North elevation 30	1	4-8"	None detected Reporting limit, 0.13
59A	North elevation 30	1	4-8"	4.9 Reporting limit, 1.2
61A	North elevation 26	3	4-8"	0.16 Reporting limit, 0.12
62A	North elevation 26	3	4-8"	0.41 Reporting limit, 0.13
63A	North elevation 26	3	4-8"	0.34 Reporting limit, 0.13
77A	Courtyard elevation 10	3	4-8"	0.74 Reporting limit, 0.13
79A	Courtyard elevation 2	10	4-8"	None detected Reporting limit, 0.12
100A	North elevation 30	1	4-8"	0.67 Reporting limit, 0.13
101A	North elevation 30 5 feet from building	1	4-8"	None detected Reporting limit, 0.12
0415EMM-70	North Elevation 30	1	8"-12"	None detected Reporting limit, 0.37

Laboratory analysis results and chain of custody are included in *Appendix C* for soil samples.

3 Remediation Plan

The work described in this SIDP shall meet the objectives identified in section 1.2 Project Objectives in accordance with 40 CFR Part §761. The remediation work shall be performed to ensure compliance with EPA Toxic Substance Control Act (TSCA) requirements and protect both public health and the environment. Materials classified as PCB Bulk Product Waste and Bulk PCB Remediation Waste shall be properly disposed in compliance with federal and state regulatory requirements. Refer to HM-001-004 for locations requiring PCB abatement.

The proposed abatement activities to be performed by the Remediation Contractor shall include the following:

1. Site preparation and controls to facilitate remediation of PCBs.
2. Health and Safety in accordance with Occupation Safety and Health Administration (OSHA) requirements.
3. Recordkeeping and distribution as required in accordance with 40 CFR part § 761.125 (c) (5).

PCB ABATEMENT REQUIRMENTS

PCB Bulk Product Waste Removal

PCB-01 – Remove existing interior expansion joint caulking on wall, and associated Concrete Masonry Unit (CMU) block wall 4" Inches) of CMU Wall on each side of the expansion joint caulking. Testing of substrate identified results of none detected at distance of 4 inches from caulking. Work shall occur in the 500, 300, and 100 Levels (521, 321, and 72) in the corridor of the 1967 section of the building. Caulking material and CMU will be removed for disposal as PCB Bulk Product Waste. Post verification sampling shall be performed in accordance with Subpart O.

Bulk PCB Remediation Waste Removal

PCB-02 – Removal of flooring and mastic in the 500 level as PCB Remediation Waste. Tile was replaced throughout the building in the 1990s. Tile previously contained asbestos and was removed and replaced with newer 12" x 12" flooring. Testing has identified PCBs within flooring mastic adhesive containing >50 ppm PCB. The material shall be considered a PCB contaminated material and removed as PCB Remediation Waste. Testing of substrate identified concrete in two of three representative samples as none-detected at surface to half inch depth. One sample had a result of 3.9 ppm at surface but was < 1ppm at depth of 1/2 inch. We propose to remove mastic adhesive using a blast tract abrasive blasting machine. This will remove approximately 1/8 inch of concrete. We propose testing of substrate following removal to confirm results meet clean-up standards using Sub-part O sampling protocols.

PCB-03 - Removal of flooring and mastic in the 400, 300, 200, and 100 levels as PCB Remediation Waste. Tile was replaced throughout the building in the 1990s.

Tile previously contained asbestos and was removed and replaced with newer 12" x 12" flooring. Testing has identified PCBs within flooring mastic adhesive containing >50 ppm PCB. The material shall be considered a PCB contaminated material and removed as PCB Remediation Waste. Testing of substrate identified concrete in multiple representative samples as none-detected at surface to half inch depth. We propose to remove mastic adhesive using a blast tract abrasive blasting machine. This will remove approximately 1/8 inch of concrete. We propose to confirm results by conducting pre-characterization of all substrates once vinyl flooring and mastic is removed using Sub-part N frequency. If any areas are identified above clean-up standards they shall be cleaned and substrate removed as necessary and confirmed with post verification sampling using Sub-part O

- PCB-04 - Removal of carpet flooring mastics and adhesives in the 500, 400, 300, 200, and 100 levels as PCB Remediation Waste. Carpet was replaced throughout the building in the 1990s. Tile was utilized extensively throughout the building originally and previously contained asbestos and was removed and replaced with newer 12" x 12" flooring or carpeting. Testing has identified PCBs within carpet mastic adhesive and glue containing >50 ppm PCB in the 500 and 300 levels only. PCBs were < 50 ppm in other levels. The material shall be considered a PCB contaminated material and removed as PCB Remediation Waste. Testing of substrate identified concrete in multiple representative samples as none-detected at surface to half inch depth. We propose to remove mastic adhesive and glue using a blast tract abrasive blasting machine. This will remove approximately 1/8 inch of concrete. We propose to confirm results by conducting pre-characterization of all substrates once vinyl flooring and mastic is removed using Sub-part N frequency. If any areas are identified above clean-up standards they shall be cleaned and substrate removed as necessary and confirmed with post verification sampling using Sub-part O.
- PCB-05- Removal of vinyl wall base and glue will be removed as PCB Remediation waste as a PCB contaminated material. Substrates from representative surfaces on walls with highest result were none-detected and no substrate contamination was identified. We propose to confirm results by conducting pre-characterization of all substrates once vinyl base and adhesives are removed using Sub-part N frequency. If any areas are identified above clean-up standards they shall be cleaned and substrate removed as necessary and confirmed with post verification sampling using Sub-part O.
- PCB-06- .Remove existing interior painted plaster walls for disposal as PCB Remediation Waste <50 ppm. Plaster substrate was tested at highest paint result and had no PCBs detected. Paint cannot be separated from substrates and shall be removed entirely. Materials shall be removed from 1956 Addition and 1952 Core Building). All plaster will be removed entirely and is backed by wire mesh which will also be removed. Upon removal no additional materials will remain and no verification sampling shall be required.

- PCB-07 - Remove exterior window caulking and glazing compounds for disposal as PCB Remediation Waste <50 ppm from 1952, 1961, and 1967 wings. Windows were installed in 1984 time frame as replacement windows. It could not be documented if the windows were installed prior to October 1, 1984. These materials therefor are not considered an excluded PCB Product and are included in proposed remediation. Substrate samples taken of adjacent masonry had no PCBs detected from 0.0"-0.5". We propose to confirm results by conducting pre-characterization of all substrates once window systems are removed using Sub-part N frequency. If any areas are identified above clean-up standards they shall be cleaned and substrate removed as necessary and confirmed with post verification sampling using Sub-part O.
- PCB-08 – Removal and off-site disposal of non-porous metal window assemblies including glass, PCB containing glazing compounds, insulation etc. from all locations identified as PCB Remediation Waste <_50 ppm.
- PCB-09- Removal of interior door frame caulk for disposal as PCB Remediation Waste <50 ppm from Gym B 54. We propose to confirm results by conducting pre-characterization of all substrates once vinyl base and adhesives are removed using Sub-part N frequency. If any areas are identified above clean-up standards they shall be cleaned and substrate removed as necessary and confirmed with post verification sampling using Sub-part O.

Remediation activities to be performed shall include the following:

1. Monitoring remediation activities as Owner's representative shall be performed by Fuss & O'Neill EnviroScience, LLC.
2. Collection of verification samples in accordance with Sup-parts P and O in accordance with 40 CFR Part § 761 for PCB.
3. Site restoration shall be performed by Owner's general trades' contractor under separate contract following PCB remediation.

Prior to abatement and remediation activities, site preparation and controls shall be established. PCB Bulk Product Waste including adjacent porous substrates shall be removed and transported off site for disposal in accordance with 40 CFR 761.62 (b) and Bulk PCB Remediation Waste will be removed and transported off-site for disposal at a permitted hazardous waste landfill which is an EPA, TSCA approved facility for PCB waste ≥ 50 ppm in accordance with 40 CFR 761.62 (a). Materials containing >1 ppm but <50 ppm that have been classified excluded PCB products will be transported to a non-hazardous solid waste disposal facility. PCB Bulk Product Waste shall be removed and properly disposed in accordance with 40 CFR Part § 761.62. Bulk PCB Remediation Waste shall be removed in accordance with Self-Implementing On-Site Cleanup and Disposal requirements in accordance with 40 CFR Part § 761.61(a).

3.1 Site Preparation and Controls

The work shall be performed in accordance with the attached SIDP technical specification section included in *Appendix D*. Prior to initiating PCB Removal the following site controls will be implemented.

- Remediation Contractor shall prepare a site specific work plan as detailed in specification section attached.
- Remediation Contractor shall prepare a Health & Safety Plan (HASP) developed specific to the site and work activities to be performed. All workers shall follow applicable federal and state regulation with regard to work activities, including but not limited to OSHA regulation including personal protection and respiratory protection requirements.
- Prior to any soil removal work, the boundaries of the excavation area shall be marked, properly secured, and a permit number obtained from “Call Before You Dig” shall be obtained **(if applicable)**.
- The project site shall be enclosed by a temporary construction fence. During all remediation activities, Remediation Contractor shall maintain control of all entrances and exits to the project site to ensure only authorized personnel enter the work areas and are afforded proper personal protective equipment and as required respiratory protection. All approaches to work areas shall be demarcated with appropriately worded warning signs.
- Work zones shall be established in accordance with technical specification to include abatement zone, decontamination zone and support zone.
- Ground protection to prevent debris from escaping the abatement zone and to protect areas outside of abatement zone from PCB contamination shall be utilized. Protection shall include the use of water impervious membrane covering which shall be secured to the ground surface. Edges shall be raised to prevent water run-off used for dust control during cutting and demolition of structures. The membrane shall be covered with a single layer of 6-mil polyethylene sheeting securely fastened to foundation. Refer to technical specification section for requirements.
- Isolation barriers shall be installed on interior side of window system to isolate these systems to the building exterior where work shall be performed. Protection shall include two layers of 6-mil polyethylene sheeting securely affixed to the inside finish surfaces of walls to isolate window or door systems to the building exterior. Refer to technical specification section for requirements.
- Isolation barriers shall be installed on exterior side of window system to contain these systems where work shall be performed to minimize dispersal of dust and debris. Protection shall include two layers of 6-mil polyethylene sheeting securely affixed to the exterior side finish surfaces to contain window or door systems. To minimize dust and

debris contractor shall utilize negative pressure containment with use of negative air filtration units with HEPA filtration. Refer to technical specification section for requirements

- Where necessary, shut down electrical power, including receptacles and light fixtures. Under no circumstances during the decontamination procedures will lighting fixtures be permitted to be operating when the spraying of amended water may contact the fixture. Provide GFCI devices, temporary power, and temporary lighting installed in compliance with the applicable electrical codes. All installations are to be made by a State of Connecticut licensed electrician.
- Shut down and/or isolate heating, cooling, and ventilation air systems or zones to prevent contamination and fiber dispersal to other areas of the structure. During the work, vents within the work area shall be "criticalled" with duct tape and polyethylene sheeting.
- The Contractor shall be responsible for removing furniture from the work areas. The Contractor shall pre-clean moveable objects within the proposed work areas using HEPA vacuum equipment and/or wet cleaning methods as appropriate and remove such objects from work areas to a temporary location. For example cabinets to gain access to floor tile and associated mastic.
- Seal off all openings, including, but not limited to, windows, corridors, doorways, skylights, ducts, grills, diffusers, and any other penetration of the work areas, with polyethylene sheeting a minimum of six (6) mils thick, sealed with duct tape. This includes doorways and corridors that will not be used for passage during work areas and occupied areas.
- Pre-clean fixed objects within the work areas, using HEPA vacuum equipment and/or wet cleaning methods as appropriate, and enclose with a minimum six (6) mil plastic sheeting sealed with duct tape.
- Clean the proposed work areas using HEPA vacuum equipment or wet cleaning methods as appropriate. Do not use methods that raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters.
- After HEPA vacuum cleaning, cover fixed walls with two (2) layers of four (4) mil polyethylene sheeting to the floor level. Where fixed walls are not used, two layers of six (6) mil polyethylene sheeting will be applied to a rigid framework of wood, metal, or PVC. Where floor tile/mastic is not being abated, cover the floor with two (2) layers of six-mil polyethylene sheeting. All overlaps shall be sealed with tape or spray adhesive.
- Maintain emergency and fire exits from the work areas, or establish alternate exits satisfactory to fire officials.

- Clean and remove ceiling mounted objects, such as lights and other items not sealed off that interfere with asbestos abatement. Use hand-held amended water spraying or HEPA vacuuming equipment during fixture removal to reduce settled fiber dispersal.
- Create pressure differential between work areas and uncontaminated areas by the use of acceptable negative air pressure equipment sufficient to provide four (4) air changes per hour and at least 0.02 inches of on a water gauge.
- The Contractor shall establish contiguous to the work area, a decontamination enclosure consisting of equipment room, shower room, and clean room in series. The only access between contaminated and uncontaminated areas shall be through this decontamination enclosure. If it is not feasible to set-up a contiguous decontamination unit, the Contractor shall establish a remote decontamination unit.
- Access between rooms in the decontamination system shall be through double flap curtain openings. The clean room, shower and equipment room within the decontamination enclosure, shall be completely sealed ensuring that the sole source of airflow through this area originates from uncontaminated areas outside the work area.
- The Contractor shall establish contiguous with the work area an equipment decontamination enclosure consisting of two totally enclosed chambers divided by double flap curtained opening. This enclosure must be constructed so as to ensure no personnel enter or exit through this unit.
- Occupied areas and/or building space not within the work areas shall be separated from asbestos abatement work areas by means of airtight barriers.
- Construct the decontamination system with wood or metal framing, 3/8" sheathing and cover both sides with a double layer of six-mil polyethylene sheeting, spray glued or taped at the joints. Caulk joints watertight at floor, walls, and ceiling.
- The Contractor and the Consultant shall visually inspect barrier several times daily to assure effective seal and the Contractor shall repair defects immediately
- All other openings to the building interior such as unit ventilation, ducts, and grilles shall be securely sealed with a single layer of 6-mil polyethylene sheeting from the building exterior. Refer to technical specification section for requirements.
- Ground protection and isolation barriers shall remain in place throughout work to collect dust and debris resulting from PCB Bulk Product Waste removal and Bulk PCB Remediation Waste removal. All debris generated during operations including but not limited to visible caulking, dust and debris shall be HEPA vacuumed continuously throughout the work shift and at the end of a work shift to avoid accumulation. Any tears or rips that occur in protections shall be repaired or removed and replaced with new protections.

- It is anticipated that to facilitate the work movable staging or lifts will be utilized to access window systems. Wind screens consisting of 6-mil polyethylene sheeting shall be applied to staging or lift to prevent dispersal of dust and debris beyond the abatement zone. Platforms shall also be protected as appropriate to facilitate cleaning of dust and debris but not introduce trip or slip hazards.
- All equipment utilized to perform cutting, or demolition of adjacent materials shall be equipped with appropriate dust collection systems.
- All surfaces adjacent to materials removed shall be properly decontaminated upon completing the removal of PCB Bulk Product Waste and Bulk PCB Remediation Wastes. The work to cut and remove Bulk PCB Remediation Waste will result in dust on surfaces to remain and this dust may contain PCBs. All visible dust shall be removed using HEPA vacuums and wet cleaning methods with solvent or other acceptable products.
- Appropriate PCB waste containers shall be placed adjacent to abatement zones. Containers shall be lined covered and secured. The PCB waste containers shall be properly marked as described in 40 CFR part § 761.40 and § 761.45.

3.2 Removal Procedures

The following removal procedures shall be utilized to conduct PCB Bulk Product Waste and Bulk PCB Remediation Waste removal.

3.2.1 PCB Bulk Product Waste Materials

PCB Bulk Product Waste Materials including interior expansion joint caulking on wall, and associated Concrete Masonry Unit (CMU) block wall 4" Inches) of CMU Wall on each side of the expansion joint caulking. Caulking material and CMU shall be handled and removed from specified locations for proper disposal. Materials shall be removed in a manner which does not breakdown the materials into fine dust or powder to the extent feasible. Equipment and tools to be utilized shall include hand tools and mechanical equipment such as demolition hammers to remove materials from adjacent substrates. Mechanical removal equipment shall as appropriate be fitted with dust collection systems. Any dry or brittle caulking or glazing compound materials or other PCB Bulk Product waste shall be removed with additional engineering controls such as use of a HEPA vacuum to remove accumulated dust or debris during removal. Once removed, materials shall be placed in lined containers or into appropriate temporary containers such as 6-mil polyethylene disposal bags for controlled transport to PCB waste containers at the end of each work shift. PCB Bulk Product Waste shall be stored for disposal in accordance with 40 CFR §761.65 and marked in accordance with 40 CFR Part § 761.40 and § 761.45. Sequence of removal shall follow the following general requirements:

1. Remove existing interior expansion joint caulking on wall, and associated Concrete Masonry Unit (CMU) block wall 4" Inches) of CMU Wall on each side of the expansion joint caulking. Testing of substrate identified results of none detected at distance of 4 inches from caulking. Work shall occur in the 500, 300, and 100 Levels (521, 321, and

72) in the corridor of the 1967 section of the building. Caulking material and CMU will be removed for disposal as PCB Bulk Product Waste. Post verification sampling shall be performed in accordance with Subpart O.

3.2.2 Bulk PCB Remediation Waste – Adjacent Building Materials

The use of minimal quantities of water to moisten the generated dust prior to collection shall be utilized. Under no circumstances shall the PCB remediation waste show evidence of free liquid water, pooling, or ponding within the waste stream. Any liquid used to wet the dust and debris to control fugitive emissions shall be collected and decontaminated in accordance with 40 CFR § 761.79 (b) or disposed of as PCB Liquid Waste in accordance with 40 CFR Part § 761.60 (a). All rags and other cleaning materials used to clean shall also be properly disposed as PCB Remediation Waste. PCB Remediation Waste shall be disposed of in accordance with 40 CFR Part § 761.61(a)(5)(i)(B)(2)(iii). All waste containers shall comply with 40 CFR § 761.65 and shall be appropriately labeled in accordance with 40 CFR Part § 761.40 and § 761.45. Sequence of removal shall follow the following general requirements:

1. Steel lintels to remain shall be stripped of all paint and surface ground smooth. Non-porous surfaces (exterior steel beam/lintel) shall be cleaned to standard of $\leq 1 \mu\text{g}/100 \text{ cm}^2$.
2. Removal of flooring and mastic in the 500 level as PCB Remediation Waste. Tile was replaced throughout the building in the 1990s. Tile previously contained asbestos and was removed and replaced with newer 12" x 12" flooring. Testing has identified PCBs within flooring mastic adhesive containing >50 ppm PCB. The material shall be considered a PCB contaminated material and removed as PCB Remediation Waste. Testing of substrate identified concrete in two of three representative samples as none-detected at surface to half inch depth. One sample had a result of 3.9 ppm at surface but was < 1ppm at depth of 1/2 inch. We propose to remove mastic adhesive using a blast tract abrasive blasting machine. This will remove approximately 1/8 inch of concrete. We propose testing of substrate following removal to confirm results meet clean-up standards using Sub-part O sampling protocols.
3. Removal of flooring and mastic in the 400, 300, 200, and 100 levels as PCB Remediation Waste. Tile was replaced throughout the building in the 1990s. Tile previously contained asbestos and was removed and replaced with newer 12" x 12" flooring. Testing has identified PCBs within flooring mastic adhesive containing >50 ppm PCB. The material shall be considered a PCB contaminated material and removed as PCB Remediation Waste. Testing of substrate identified concrete in multiple representative samples as none-detected at surface to half inch depth. We propose to remove mastic adhesive using a blast tract abrasive blasting machine. This will remove approximately 1/8 inch of concrete. We propose to confirm results by conducting pre-characterization of all substrates once vinyl flooring and mastic is removed using Sub-part N frequency. If any areas are identified above clean-up standards they shall be cleaned and substrate removed as necessary and confirmed with post verification sampling using Sub-part O

4. Removal of carpet flooring mastics and adhesives in the 500, 400, 300, 200, and 100 levels as PCB Remediation Waste. Carpet was replaced throughout the building in the 1990s. Tile was utilized extensively throughout the building originally and previously contained asbestos and was removed and replaced with newer 12" x 12" flooring or carpeting. Testing has identified PCBs within carpet mastic adhesive and glue containing >50 ppm PCB in the 500 and 300 levels only. PCBs were < 50 ppm in other levels. The material shall be considered a PCB contaminated material and removed as PCB Remediation Waste. Testing of substrate identified concrete in multiple representative samples as none-detected at surface to half inch depth. We propose to remove mastic adhesive and glue using a blast tract abrasive blasting machine. This will remove approximately 1/8 inch of concrete. We propose to confirm results by conducting pre-characterization of all substrates once vinyl flooring and mastic is removed using Sub-part N frequency. If any areas are identified above clean-up standards they shall be cleaned and substrate removed as necessary and confirmed with post verification sampling using Sub-part O.
5. Removal of vinyl wall base and glue will be removed as PCB Remediation waste as a PCB contaminated material. Substrates from representative surfaces on walls with highest result were none-detected and no substrate contamination was identified. We propose to confirm results by conducting pre-characterization of all substrates once vinyl base and adhesives are removed using Sub-part N frequency. If any areas are identified above clean-up standards they shall be cleaned and substrate removed as necessary and confirmed with post verification sampling using Sub-part O.
6. Remove existing interior painted plaster walls for disposal as PCB Remediation Waste <50 ppm. Plaster substrate was tested at highest paint result and had no PCBs detected. Paint cannot be separated from substrates and shall be removed entirely. Materials shall be removed from 1956 Addition and 1952 Core Building). All plaster will be removed entirely and is backed by wire mesh which will also be removed. Upon removal no additional materials will remain and no verification sampling shall be required.
7. Remove exterior window caulking and glazing compounds for disposal as PCB Remediation Waste <50 ppm from 1952, 1961, and 1967 wings. Windows were installed in 1984 time frame as replacement windows. It could not be documented if the windows were installed prior to October 1, 1984. These materials therefor are not considered an excluded PCB Product and are included in proposed remediation. Substrate samples taken of adjacent masonry had no PCBs detected from 0.0"-0.5". We propose to confirm results by conducting pre-characterization of all substrates once window systems are removed using Sub-part N frequency. If any areas are identified above clean-up standards they shall be cleaned and substrate removed as necessary and confirmed with post verification sampling using Sub-part O.
8. Removal and off-site disposal of non-porous metal window assemblies including glass, PCB containing glazing compounds from all locations identified as PCB Remediation Waste <50 ppm.
9. Removal of interior door frame caulk for disposal as PCB Remediation Waste <50 ppm from the 200 and 400 levels. We propose to confirm results by conducting pre-

characterization of all substrates once vinyl base and adhesives are removed using Sub-part N frequency. If any areas are identified above clean-up standards they shall be cleaned and substrate removed as necessary and confirmed with post verification sampling using Sub-part O.

10. All homogenous materials mentioned on this plan containing PCBs will be disposed of as either PCB Bulk Product Waste or PCB Remediation Waste.

3.3 Verification Sampling Plan

Following the completion of the Bulk PCB Remediation Waste shall implement the following verification sampling plan in accordance with 40 CFR Part § 761.61 (a)(6) and to the extent applicable Sub-part O and N.

Upon completion of work in each area, a visual inspection of all remediated surfaces for visible evidence of dust and debris shall be performed. Surfaces shall also be inspected for visible PCB source materials that may not have been removed. The visual inspection shall provide in a preliminary way, verification that remediation work has been completed in accordance with this SIPD. Visual inspection shall ensure no visible dust or debris is present on adjacent surfaces where caulking was removed and adjacent surface cutting is completed. In addition to the remediation surfaces the surfaces of protective coverings and isolation barriers shall be inspected to ensure they are cleaned of dust and debris. No sampling shall be performed until the visual inspection is complete and the clearance criteria satisfied in each work area. The project shall be phased in accordance with proposed construction schedule. .

3.3.1 Porous Surfaces (Verification Sampling)

Brick, CMU Block, and Concrete surfaces shall be evaluated to verify that removal of Bulk PCB Remediation Waste has resulted in surfaces with ≤ 1 ppm for unrestricted use based on high occupancy use of the structure. EnviroScience shall follow the EPA "Standard Operating Procedures for Sampling Porous Surfaces for Polychlorinated Biphenyls (PCBs)" (dated May 11, 2011) as prepared by the Office of Environmental Measurement and Evaluation, EPA New England Region 1., to collect verification samples. The areas to be sampled shall be representative of the variety of conditions identified. Appropriate control samples shall also be collected.

Locations requiring sample verification will be performed on associated masonry openings associated with window systems and exercise gym floor. The surfaces to be verified are irregular shaped and the requirements for sample location and quantity as detailed in Sub-part O, and Sub-part N (alternative) shall be applied in a linear fashion in lieu of a grid pattern. The surfaces involve linear surfaces of vertical/horizontal jambs on multiple masonry openings resulting from PCB caulking materials. Sampling shall be conducted in accordance with the following protocol:

Windows – One chip sample shall be collected from each jamb having a linear dimension of **5 feet to 10 feet** or less. Four chip samples shall be collected from each jamb having a linear length of not more than 20 linear feet.

CMU block Wall – One chip sample shall be collected from each side adjacent to the expansion joint every 5 feet or less.

Brick Wall - One chip sample shall be collected from each side adjacent to the expansion joint every 5 feet or less.

Wethersfield High School

1. Exterior Caulks (windows and doors)	1,600 LF (160 Samples every 10 ft.)
2. Interior Wall expansion Joints (CMU Wall)	45 LF (9 Samples)
3. Interior CMU (block Wall)	200 SF (40 Samples)
4. Vinyl Flooring, adhesives, mastic and base cove	30,000 SF (500 Level 300 Samples)
5. Vinyl Flooring, adhesives, mastic and base cove	120,000 SF (400, 300, 200, 100 Level)- (300 composite samples)
6. Painted Plaster Walls (1967)	50,000 SF (Wall complete removal)
7. Interior White residual casing caulk	100 LF (20 Samples)
8. White classroom door window glazing	100 LF (20 Samples)
9. Interior fixed partition window casing caulk	100 LF (20 Samples)
10. Interior door frame caulk	100 LF (20 Samples)
11. Interior Window frame caulk	150 LF (30 Samples)

A total of 919 samples for verification shall be collected along with 5% duplicate samples (46 samples), totaling 965 samples. The laboratory shall be an accredited laboratory for PCB analysis. The analysis method shall include extraction using EPA Method 3540C (Soxhlet Extraction) and analysis method SW846 8082.

Results of analysis shall be compared to the clearance objective which for unrestricted use shall be ≤ 1 ppm. If any location exceeds this clearance objective, additional removal will be conducted.


Post abatement PCB air/wipe samples will be performed according to EPA recommendations.

4 Schedule and Plan Certification

It is the intent of the Owner (Wethersfield High School) to begin the removal of PCB Bulk Product Materials and Bulk PCB Remediation Waste during proposed construction in three separate phases beginning in the summer of 2013, and completing all work by 2016. Other non-PCB work will occur in the in the same time period in accordance with the overall construction plan. It is anticipated that the work shall be performed as expeditiously as possible including removal of PCB Bulk Product Waste followed by the removal of Bulk PCB Remediation Waste from adjacent surfaces. Upon completing the Bulk PCB Remediation Waste removal and verification sampling confirming the Project Objectives are met, the renovation project shall commence. **The PCB Abatement work will be conducted in “Regulated Areas” where neither staff nor students will be allowed to enter.** The school

will be occupied, however, all PCB remediation work will be performed in regulated areas not accessible to students or staff. Fuss & O'Neill EnviroScience will develop a Communications Plan for the WHS describing proposed activities.

The Owner hereby certifies that all the sampling plans, sample collection procedures, sample preparation procedures, extraction procedures and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the cleanup site, are on file at the School and available for EPA inspection.



Owner's Representative,
Jeff Bridges, Town Manager

09/05/2013

Date



Fuss & O'Neill EnviroScience, LLC Representative
Carlos Texidor, Project Manager

09/05/2013

Date

Remediation Contractor Representative
To be determined

Date

Figures

1-1 Site Location Map

2-1 WHS Construction History

3-1 WHS Construction Phasing Plan

HM-001 - 004 PCB Remediation Drawings

HP-001 – 005 PCBs Source, Substrate, and Soil Sampling Locations

Appendix A

Laboratory Analysis and Chain of Custody – Source Materials-Bulk

Appendix B

Laboratory Analysis and Chain of Custody – Adjacent Porous Surfaces-Bulk

Appendix C

Laboratory Analysis and Chain of Custody – Adjacent Soil Sample Analysis

Appendix D

Technical Specification Section

Appendix E

Air and Wipe Sampling for Polychlorinated Biphenyls

Appendix F

Technical Specification Section for Soils (PBP) – Phase 1

Appendix G

PCBs Excel Spreadsheet Sample(s) Data Log

Appendix H

PCB Sample Summarization Table

Appendix I

PCB Quantity and Post-Verification Quantity